Occidental Medical Times.

Vol. VIII. FEBRUARY, 1894. No. 2.

THE PATHOLOGY AND LOCAL TREATMENT OF PUERPERAL ENDOMETRITIS.

By Wm. Fitch Cheney, B.L., M.D., Adjunct to the Chair of Obstetrics, Cooper Medical College.

Read before the San Francisco County Medical Society.

Much has been learned about puerperal infection during the past fifty years. Vast strides have been made toward determining its causes and explaining its manifestations; and hand in hand with this progress, has come knowledge of the way to prevent the disease and to diminish its former ravages. Investigation on this subject, particularly as regards the question of pathology, is constantly going on, so that much of it is now more recent than the text-books on obstetrics in general use. Because this investigation is of the greatest value, not only from a theoretical but also from a practical standpoint, I have thought that a review of what is being found out, might be of interest to this Society. Germany and France have given the most important of recent contributions to the knowledge of puerperal infection. Most prominent among the investigators in Germany, in this particular line, is Bumm, of Würzburg, who has done more than any other to clear up the pathology; but his work has been reinforced and corroborated by that of Leopold, Gärtner, Kroenig, and others. In France, the most valuable contributions have been made by Widal, Chantemesse, and the famous Bouchard. All the writings on the subject, considered in preparing this paper, have appeared within the last four years.

It has been found, first of all, that in the great majority of cases of puerperal sepsis, the endometrium is the port of entrance into the organism for infectious germs. It is not denied that infected perineal, vaginal, or cervical wounds may give rise to fever and even lead to general sepsis; but this is the exception. Usually the infection of these wounds is limited to them, and the germs do not get far outside, into the surrounding tissues. On the other hand, in every case examined by Bumm and Widal, where death resulted from general sepsis, the germs could be traced into the body from the endometrium. Puerperal endometritis thus becomes a pathological condition most necessary to be understood, and one particularly to be borne in mind in treatment.

Bumm, following the classification of Kehrer, according to the etiology, divides puerperal endometritis into two kinds—Putrid and Septic. *Putrid endometritis* is due to the action of saprophytic microörganisms, such as flourish on decaying animal or vegetable matter anywhere. It is not necessary to their growth that fragments of membrane be retained in the uterine cavity, and as for septic germs, they play no part in this process. These saprophytes produce a degeneration of the decidua. Sometimes they affect only its uppermost layers, which are cast off physiologically, during regeneration of the mucous membrane, without germs and without putrefaction; but sometimes they extend more deeply into the decidual tissue. The chemical products of the putrefaction they induce, are absorbed into the circulation, produce elevation of temperature and the other symptoms of putrefactive intoxication. Wherever the saprophytes extend over the mucous membrane, it is found in a condition of necrosis and disintegration; but beneath this zone of necrosis follows a layer of cellular infiltration, made up of small, round cells, which are simply white blood corpuscles that have wandered out from the vessels. These lie closely packed together, forming a wall that separates the necrotic decidua from the muscular tissue beneath. Through this wall the microörganisms nowhere pass. It separates the dead from the living elements, and marks the point at which nature successfully marshals her forces to repel the invading host. In putrid endometritis, therefore, there is no passing of microorganisms into the circulation, but merely an absorption of the chemical products of their activity within the endometrium.

Septic endometritis, on the other hand, is characterized by the settlement upon the decidua of the well-known microbes of human sepsis—staphylococci and streptococci. By far most frequently the streptococcus is the cause of septic endometritis. Czerniewski has demonstrated this for patients in lying-in institutions; Bumm says it is true in private practice as well. The two forms are often present together, but seldom is the staphylococcus found alone, and then only in mild cases, running an easy course, as Fehling has observed. Even with these malignant germs colonized inside the uterus, the pathological findings are not always the same. Hence the condition has been subdivided into (*a*) localized septic endometritis, and (*b*) septic endometritis with subsequent general infection.

In *localized septic endometritis*, the infection remains limited to the endometrium. Here again the decidua becomes permeated by germs, but this time by the characteristic chain cocci, instead of the comparatively harmless saprophytes. The effect of this, as before, is necrosis and disintegration; but beneath the necrosed layer the same round cell infiltration takes place, and a granulation wall is formed between the disintegrated decidua and the muscular tissue. Into this granulation layer the cocci do not penetrate. It acts as a barrier here, to the pathogenic streptococci, just as in putrid endometritis, to the germs of putrefaction. The fever observed in these cases must, therefore, also be attributed to absorption and resorption of chemical products of metamorphosis, formed in the necrotic layer by the streptococci or staphylococci; and not to direct passage of microörganisms into the circulation.

In *septic endometritis with subsequent general infection*, the wall of granulation tissue has been broken through by the germs. It has formed, and its ruins can be seen; but it has been destroyed and beaten down. This result accomplished, the victorious streptococci take one of two roads in their passage onward through the uterine wall—the lymphatics or the veins. If they take the former, they can be traced in stained microscopic sections, following now the coarser, now the finer lymph channels, from the necrotic decidua directly through the uterine wall, between the muscle fibers, until at last they reach the serous surface of the uterus, there to set up a peritonitis and thence to be carried to every part of the body. Bumm examined one such case, where death resulted on the fourth day from septic peritonitis, and succeeded in cultivating streptococci in large numbers, not only from the endometrium, but from the peritoneal fluid, the blood, the spleen, the liver, and the kidneys. In these cases, where the germs follow the lymph vessels in their passage through the uterine wall, the placental site has most of its veins well closed, and free from thrombi and cocci; only some of the smaller venous lumina contain thin plugs of blood, in which are a few germs. The lymph vessels, on the contrary, are perfectly filled with cocci, as if injected with them; and from these as foci the infection spreads into the neighboring muscle tissue, which there becomes necrotic and degenerated. White blood corpuscles wander into this necrotic tissue surrounding the lymph vessel, changing it to a pus cavity, and thus result the abscesses sometimes found, *post-mortem*, in the uterine wall. The journey from the endometrium to the peritoneum is, as a rule, made by the germs directly through the wall, and only rarely through the fallopian tubes; in most cases the latter remain free from germs, and their mucous membrane sound. There is found to be a physiological stenosis at the ostium internum tubæ, which normally shuts off advance of the cocci along the tube lumen; and only in pathological conditions, which have made the tubes unusually patulous, does infection of the peritoneum take place through them.

When the streptococci choose the veins instead of the lymphatics for their onward march, the condition of the endometrium is the same as already described. It is everywhere permeated by germs, necrotic, and all its previous structure broken down into a smeary mass. The necrotic layer is well separated from the sound tissue by the reaction layer of nucleated round cells, into which the germs do not penetrate. The lymph vessels are entirely free from germs. At the placental site, even when separation has been perfect and no placental fragments remain, the veins are found to be filled with thrombi, which can be traced from the free surface of the uterine cavity clear through to the ligamenta lata. These thrombi are invaded by the streptococci, and along them the latter pass, now following the axis of the vessel's lumen, now spreading out into the periphery and even to the vessel wall. With their spread, the substance of the thrombus quickly becomes disintegrated. The closer the germs approach the vein wall, the more it becomes infiltrated with round cells. Then some of these cells wander into the vessel lumen, which finally contains a mixed detritus of the remains of the thrombus, leucocytes and germs. The veins of the ligamenta lata are also filled with infected thrombi, which present the same appearance as those in the uterine wall.

In looking over these pictures of the pathological changes presented in puerperal endometritis, several important points stand out. (1) The endometrium, where the germs have settled and developed, is, in all forms of the affection, changed into a necrotic layer. (2) In every case this necrotic germ zone is separated by a wall of round cells from the sound tissues beneath, representing the effort of nature to protect the organism from further invasion. (3) In simple putrid endometritis and in localized septic endometritis, this wall proves fully competent to prevent the germs from advancing; and at no point do they succeed in penetrating it. (4) In the cases where general infection takes place through the veins, the protecting wall of round cells still operates to check invasion at all points except the placental site, where the plugs of clotted blood afford a suitable culture medium for the germs. (5) In the cases where general infection takes place through the lymphatics, and in these cases alone, does the wall of round cells prove entirely powerless to resist the advance of the streptococci, which beat it down and swarm through the gaps to overrun the whole body.

In every case the infecting germs concerned in puerperal endometritis are the same—the staphylococcus and streptococcus, and the same wound surfaces exist in all; how then does it happen that at one time the infectious process remains localized, at another the germs make their way through the venous channels, and at another through the lymphatics? It was at first thought by investigators that an explanation could be found in varying personal capability for resistance, which showed itself in different individuals as perfect, relative or entirely lacking immunity against the streptococcus. But this theory has been abandoned, and it is now assumed that all women in labor have an average degree of susceptibility for the septic poison. The chief cause for the varying course of the infection is, therefore, considered to lie in the pathogenic agents themselves. The number of germs present does not play a part—Bumm could distinguish no essential difference in the amount of them shown by the necrotic decidua in mild and in severe forms; and it is known, also, that the smallest quantity of septic material, from the most minute wound, can cause the most severe form of sepsis. The only explanation remaining is, therefore, this—that the virulence of bacteria varies. This point is urged by Widal and Chantemesse. By virulence they do not mean a property independent of other life functions, an increased manifestation of poisonous qualities, but rather a greater capability of resistance, an increased power of all their functions, which makes the germs able to overcome the harmful influence of the body tissues and juices, and in spite of these to multiply. Thus, in localized septic endometritis, and to a certain extent in the thrombotic form of puerperal infection, the germs are assumed to be of relatively weak virulence, while in the lymphatic form they are able to overcome the local reaction, because of their greater virulence against which the organism proves powerless.

It remains to call attention to the bearing of these investigations on the question of local treatment. The most important lesson appears to be that it is possible to do more harm than good in the effort to get rid of the germs; for, in most cases of puerperal endometritis, nature, unaided, is able to prevent their advance beyond the endometrium. Except in the most violent types of the disease, the symptoms are due wholly to the absorption of chemical products from the interior of the uterus; only such treatment, therefore, as helps to remove these toxic products, and does not at the same time disturb the barriers that keep out the germs themselves, can be indorsed as justifiable. The best results are attained by local treatment in putrid endometritis, and as a rule douching the uterus with boiled water suffices here to remove the fetid odor of the lochial discharge and to produce a rapid fall of temperature. Bumm made bacteriological examinations of the lochia after intrauterine injections with boiled water, and again after injections with disinfecting solutions of sublimate, carbolic acid and lysol. He found that after allowing twenty-four hours to elapse, the lochia showed just as many germs in one case as in the other. If the temperature once more rises and the discharge again becomes foul after washing out the uterus, the process is to be repeated. Frank recommends that the intrauterine injection be kept up much longer than is usually done, until a gallon and a half or two gallons of sterile water have been used.

The curette should come into consideration only after douches have failed. If the case is one of pure putrid endometritis, the curette can only do harm by breaking down the protective layer of round cells beneath the necrotic decidua. In localized septic endometritis the same is true; and if it is doubtful whether the germs at work are saprophytic or septic, as must often be the case, the douche should always first be tried, and the curette reserved for a last resort. If a curette is used, it should be a blunt one; for this will serve to remove all the soft, disintegrated decidual tissue, without danger to the subjacent muscular wall. The chills and increased temperature that not uncommonly follow the scraping out of the puerperal uterus, are due to the mechanical action of the curette, in pressing the products of putrefaction or the septic germs deeper into the tissues, where absorption more readily takes place. This can be prevented, it is found, by thoroughly washing out the uterine cavity with boiled water before the instrument is introduced. Thus in any case the intrauterine douche comes to play a most important part in local treatment.

Recently much has been said in favor of the iodoform gauze tampon for the uterine cavity. Fritsch recommends it in puerperal endometritis, following the douche. It acts here as in any wound, as antiseptic and stimulant to healthy granulation processes; but its main advantage in these cases is the drainage it affords. It seems probable that much of the intoxication symptoms in puerperal endometritis come from retention of discharges, especially when the position of the uterus following labor is one of anteflexion, as frequently occurs. The gauze strip, running from the fundus to the vagina, provides a constant outlet for infected discharges and prevents accumulation. There seems no good reason why the surgical principles applicable to other wound cavities should not be applied to the uterus after labor, and free exit for all secretions, with cleanliness of the granulating surface, are as necessary in one case as in the other. Hence the gauze tamponade and the aseptic douche appear to be rational local treatment.

It is true, however, that the uterine cavity sometimes differs from other wound cavities, in having bits of dead tissue left clinging to its wall, after incomplete expulsion of placenta and membranes. This is made the excuse for many an attack with curette or other instrument, when the first elevation of temperature occurs. There are several facts to be borne in mind in this connection, that recent investigations have brought out: (1) That retention of fragments after labor at full term is by no means so common as is generally assumed —in fact, it is the exception here, though common enough after abortion. (2) That such retention is in no way necessary to the colonization and growth of either saprophytic or septic germs, which find in the decidual membrane all the soil they need. (3) That even if such fragments do remain, nature alone is able gradually to throw them off, by a process of reactive inflammation, without serious harm to the organism. If now, on mere suspicion that such fragments have been left within the uterus, a curette at once be used to remove them, an unnecessary and unjustifiable violence has been done, if no such fragments were really there; and if they are found and removed, the entire decidual surface has at the same time been scraped away, and a much larger raw surface created than existed before, with correspondingly increased opportunity for general infection. Such treatment must often do far more harm than good.

In septic endometritis, the results of local therapy are always uncertain. It has long been observed that methods one time giving good results, will, on another occasion, fail entirely, no matter whether resort be had to disinfecting douches, to curetting, to iodoform gauze tampons, or to any other plan. These varying results are now explained by the unequal virulence of the streptococci at work, which quality is manifested not only in the ease with which they overcome the local reaction within the uterus, but also in the resistance they offer to means employed from without to destroy them. Sometimes they are easily dislodged and rendered harmless; but again they penetrate very quickly into the tissues and stick there firmly, despite all antiseptic measures. Schimmelbusch has recently published experiments on animals, which show that even though a freshly infected wound was immediately subjected to disinfection, this did not suffice to check the advance of the streptococci, which at last caused the death of the animal. Such experiments throw much light on the occasional failure of all methods of treatment to accomplish good in septic endometritis.

It must also be borne in mind that sometimes the local treatment not only fails to aid, but really makes matters worse. It does this by producing new wounds in the endometrium, tearing open those already closed, disturbing septic masses which have begun to be encapsulated or breaking loose infectious thrombi. A chill may follow a simple intrauterine injection, and elevation of temperature, with other symptoms of parametritis or peritonitis, at once supervene. In October, 1892, a paper was read by Schrader before the Obstetrical Society in Hamburg, in which he strongly advocated that local treatment of puerperal endometritis be entirely omitted. He claimed that mild cases would recover without it, and more severe cases were either not helped or were made worse by intrauterine measures of any sort. This rather unusual position was upheld by many others, in the discussion that followed. Lomer said that in Berlin, with a large amount of material at hand, he had lived through the irrigation period, and from permanent irrigation of the uterus he had never seen good but much evil result, while even from occasional irrigation he had learned to abstain more and more; he did not believe the puerperal uterus should be interfered with, even to remove remnants of membrane. Credé, he said, had demonstrated by a large number of cases, that it was better to let the uterus alone. Grapow, in the course of the discussion, expressed the quandary in which many a man finds himself placed: if he irrigates the uterus and the patient dies, then he attributes the death to irrigation; but if she dies without irrigation, he believes irrigation might have saved her. In both cases he is a scapegoat, one time because he committed an act, the other because he omitted it. It yet remains to be decided which position is the more pleasant.

In concluding this paper, I would state that the only attempt has been to give some account of the work being done and the views being expressed on this subject by authorities. Many questions in obstetrics yet remain open, and a procedure at one time regarded as the quintessence of progress, may ten years later be rejected entirely. Without being able to fix the limits exactly as to what shall or what shall not be done in local treatment of puerperal endometritis, it must be observed that our growing knowledge of the pathology emphatically teaches conservatism, and urges upon us greater confidence in the *vis medicatrix naturæ*. In the words of the illustrious Credé: "First we learn what to do and how to do it; but only later and with much more difficulty, do we find out what *not* to do and how *not* to do it."

906 Polk street.

THE UTERINE CURETTE; ITS USES AND ITS LIMITATIONS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal.

Read before the California Northern District Medical Society.

A consensus of opinion as to the proper form, uses, and limitations of the uterine curette has not been reached. The sharp, the medium, the dull curette; the plain, the irrigating; the stiff, the flexible; the fenestrated and the solid, each has its partisans. The indications of the curette, as promulgated by different authors, are hardly less various than its forms. With some the curette is indicated in almost every variety of metritis and endometritis, with others it is indicated in the fungous or hemorrhagic variety only; while between these extremes every possible shade of opinion is entertained.

The limitations of the curette are also undetermined. By some curettage is regarded as generally curative, by others as generally palliative. It shall be the purpose of this paper to consider these opinions, and, in as far as possible, to rate them at their real value.

To be a safe instrument, of the highest convenience and efficiency, the curette should have an edge, as Pozzi says, like that of an unfiled knife-blade. The sharp curette, the curette of Sims, is likely to remove the mucosa in its entirety, and thus give rise to cicatricial tissue, or even to penetrate the uterine wall and enter the peritoneal cavity—dangers that no one of large experience with this instrument, will pronounce chimerical. Emmet even goes so far as to declare that the sharp curette is capable of more harm than any other instrument ever devised by the ingenuity of man.

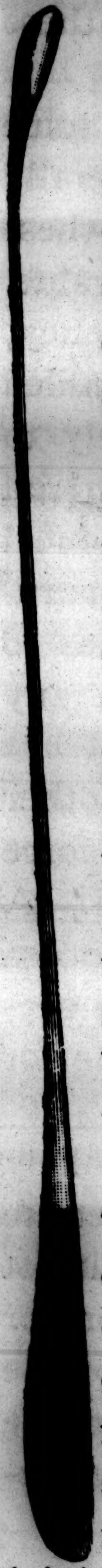
But if, on the one hand, the sharp curette is unsafe, on the other hand, the dull or wire curette is inefficient except by the use of force that makes it even more dangerous than the sharp curette itself. A medium edge, then, an edge neither so sharp as to remove the mucosa *in toto*, nor so dull as to endanger the uterine wall by the force necessary to its efficient use, a watch-spring edge, is most suitable for the uterine curette.

Other things being equal, the fenestrated curette is more likely than the solid one, to remove the mucosa too deeply or to penetrate the uterine wall, for with the former the force is exerted almost wholly on the edge, while with the latter it is distributed more or less over the entire chord. Moreover, an important function of the curette is to remove the debris which it separates, first to inform the operator of its nature and quantity, and second, to assist in establishing an aseptic condition of the uterine cavity.

Whatever the origin, whether in placental remains or in degenerated mucosa, this debris is nearly always infected and often, even before its separation, has been the source of grave symptoms, either local or constitutional. The bowl of the curette, therefore, should be solid, not fenestrated.

It should be somewhat pyriform in outline and only the distal two-thirds of its circumference should present a cutting edge, while the proximal third, being wholly useless, should shade down rapidly to its junction with the shaft.

The shaft should be firm enough not to yield in use, and flexible enough to be easily bent to any desirable angle. It is an error to rely on a flexible shaft to save one from doing harm to the uterus for, to do safe and effective work, the operator must know at every moment, as nearly as possible, just where the cutting edge of the instrument is, and at what angle it is bearing on the uterine tissues.


Author's Curette.

The handle should be of hard rubber to lighten the instrument; and flattened on one surface, that corresponding with the cutting edge of the curette, and rounded on the other, so that it will be instinctively grasped in one way, and in one way only, with the edge of the bowl corresponding with the palmar aspect of the hand.

The course of the irrigating curette easily becomes blocked, is difficult to cleanse, and furnishes ready lodgment for septic matter, while the process of irrigation is likely to distract the attention from curettage—the work really in hand. The plain curette, therefore, is preferable to the irrigating.

In length the curette should be either about 10 or about 13 inches—the latter for the puerperal uterus after the second month and the former for the non-puerperal uterus and for the puerperal uterus before the third month.

In accordance with these views Messrs. Tiemann & Co. several months ago made for me a set of curettes that seem to embody all of the qualities of a perfect instrument. Repeated use of both, in non-puerperal cases, demonstrates their superiority to the curettes I had previously employed.

The limitations of the curette are best observed in the cervix. The persistence of the thick mucous plug and of catarrhal discharge after curettage in chronic catarrh of the cervix and the continued resort to Emmet's and to Martin's operation show conclusively that in this condition the curette is by no means infallible. This was to have been expected. The curette is a sacrificial instrument. Instead of sanifying diseased structures it removes them. But it does not remove them wholly. It leaves behind the *culs-de-sac* of the mucous follicles which dip down into the muscular tissue. This it is that constitutes the strength, but too often, also, the fatal weakness of curettage, its strength because the remaining *culs-de-sac* form the basis for the reproduction of the mucosa; its weakness because these *culs-de-sac*, themselves infected, produce infection of the new mucosa.

In recent cases, cases in which the *vis medicatrix naturæ* has not been exhausted, curettage, with proper adjuncts, offers reasonable hope of cure, but in cases of long standing, cases in which there is profound alteration and infection of the mucosa and even of the muscularis, curettage promises amelioration, marked amelioration even, but, if my observation is to be trusted, amelioration only.

The uterine curette may be used to remove the mucosa, placental and decidual remains, whether *post-partum* or *post-abortum*, uterine polypi, submucous fibroids and malignant growths. The scope of this paper, however, is restricted to the consideration of its use in endometritis and retained placenta.

Carefully done curettage is among the safest of operations; carelessly done it may be the most disastrous. Two elements are imperative—the strictest cleanliness and antisepsis and the utmost thoroughness in curetting. The ease, with which, especially in the puerperal condition, the venous and the lymphatic system of the uterus take on the infective processes, the difficulties of drainage, the proximity of the peritoneum and its continuity with the tubal and uterine mucosa combine to invest with peculiar gravity the existence of a septic condition of the uterine contents. More than almost any other surgical procedure, then, curettage demands the strictest cleanliness and the most rigid antisepsis.

Assuming that these have been enforced, the patient should be put under ether and placed in the semi-prone position. The cervix should be exposed with a Sim's speculum and its anterior lip seized forcibly with the volsellum, the dilator introduced and slowly and carefully expanded until the cervix is thoroughly dilated. Now comes an important point which, I believe, is, too frequently neglected. The cervix should be "thoroughly dilated" for those purposes—diagnosis, curettage, drainage. Immediately after dilatation there should be made a thorough digital exploration of the uterine cavity, a bimanual examination and, if necessary, a recto-abdominal examination of the pelvic organs. In this way we shall obtain information of great value not only as to the present, but also as to the future conduct of the case—information as to the condition of the uterine walls and mucosa, the absence or presence and situation of placental remains, polypi, fibroids, the existence of adhesions and the condition of the adnexa.

These data having been ascertained, the index finger will sometimes be found the safest and most efficient curette—a curette with "brains in it." Retained placenta particularly may be detached and removed in this manner. Curettage itself should be systematically and thoroughly done, beginning at some particular point from which it proceeds continuously over the entire mucosa—including that of the cornua, the internal os and, if necessary, the cervix. It should be continued at every point until the superficial mucosa is removed and the underlying muscularis imparts to the hand through the curette the characteristic grating sensation, which, once recognized, can never be mistaken.

Two conditions, as I have said, are essential to the success of curettage—the strictest cleanliness and antisepsis and the thorough removal of diseased or adventitious tissue, and of placental or decidual remains. In retained placenta considerable difficulty will often be experienced in detaching the adherent portions, but they must all be detached and removed, or the operation were far better not undertaken. A little patience and perseverance in these cases will always be rewarded by ultimate success.

In all cases the debris should be removed as thoroughly as possible with the curette; otherwise it will remain to undergo decomposition and to infect the uterus. Irrigation removes very little of this debris, for, as ordinarily employed, the catheter blocks the cervical canal so that only the smallest particles can pass it.

All of the loosened tissues having been removed the uterus should be thoroughly irrigated with a creolin solution (1:100). If the possibility of infection is entertained the uterine walls should be "scrubbed" with iodized creosote in the following manner: draw into an ordinary hard rubber uterine syringe about 2 drachms of iodized creasote, wrap the distal end of the nozzle with absorbent cotton, introduce it into the uterine cavity, and as the iodine solution is slowly expelled "scrub" the entire uterine wall. Any excess of the medicament should be washed away with creolin solution, with which vaginal antisepsis should be maintained for not less than a week following the operation.

212 J street.

NOTES ON A CASE OF SUSPECTED MULTIPLE SARCOMA OF THE SKIN.

By R. W. Baum, M.D., and D. W. Montgomery, M.D., San Francisco, Cal.

Read before the California Academy of Medicine.

The patient, Mr. C. H——, aged 51 years, by occupation a laborer, was born in Germany. There is very little family history, as patient lost his parents when quite young. He says he has always been well, excepting once, in 1871, when he returned from the Franco-German war, and suffered from a dropsical affection of his entire body. This trouble, however, which was attributed to exposure during the war, was of only short duration, and patient soon recovered under treatment at a hospital in Hamburg. From that time on, he enjoyed good health until about two or three years ago, since which time he has been troubled, off and on, with pains in the region of the stomach and left side, which were usually worse about one and a half hours after meals. For a period of three or four months, there were no pains except on pressure. There never was any vomiting, but sometimes a nauseous feeling, especially when constipated. There is said to have been pain in both lumbar regions, and at such times more or less difficulty in passing urine. All these symptoms seemed to become more severe, so that the patient could not attend to his occupation; he therefore sought relief in the German Hospital in San Francisco in August, 1893.

The physical examination showed a man of about medium hight, fairly well nourished, of a very dull, ashy-colored complexion. On palpation of the abdomen, there is a sensitive point over the upper part of the epigastrium, but no nodular formation or hardness is perceptible. Patient's appearance is decidedly cachectic, and he says that he has lost weight within the last year. Urine is normal. Percussion and auscultation reveal nothing abnormal. Contents of stomach show free hydrochloric acid by color test.

On careful inspection of the body, no abnormal condition of the skin is found, excepting a small protuberance, like a little nodule, about the size of a pea, of a bluish-red color, on the inside of the right thigh.

Although the general appearance of the man suggested some malignant disease; apparently cancer of the stomach, the physical examination did not in any way sustain such a diagnosis.

Patient was put on treatment especially adapted to relieve the gastric symptoms; he was given simple but nutritious diet; bitter tonics, such as condurango, and gentian, etc. He soon began to improve, and even gained a little in weight, so that after four weeks' stay at the hospital, he was allowed to go, and was considered cured, although his complexion still showed the ashy hue.

In October, 1893, fully five weeks after his discharge, patient returned to the hospital with the same symptoms as before, only more pronounced. A careful physical examination again gave the same results: free hydrochloric acid in the stomach contents; urine normal; heart, lungs and liver normal; no enlargement of spleen. In marked contrast with these conditions was the pallor and leaden color of his face.

Whilst making a physical examination, with Dr. Montgomery, there was observed a small bluish-red nodule in the skin of the abdomen, to the right of the navel; also, a very small one below the left clavicle. Both little nodes were adherent to the skin, movable with it, but not adherent to the underlying tissue. Patient had never observed these nodules before and only knew of the one already mentioned, on the right thigh, which he had seen ever since he was a boy, and had considered a mole. Not having noticed the little tumors before, the suspicion was awakened that they were connected with the disease and were of a malignant type.

The large nodule, which patient asserts he has seen since childhood, was partially excised, and, on microscopical examination by Dr. Montgomery, found to be embryonic tissue, *i. e.*, connective tissue with a number of spindle cells.

About four weeks later, the previously partially excised tumor of the thigh was found to have grown to about the size of a brown bean, the one near the navel had also reached about the same size, and there were a number of new tumor-like, bluish-red discolorations, about the size of a lentil, on the back, to the right of the spinal column, near the last ribs.

The tumor on the thigh was totally extirpated and found to be fully encapsulated and imbedded in the skin, not adherent to the underlying tissue; the same conditions were found to prevail in the second tumor on the abdomen, which was also excised. Both tumors showed, on microscopical examination, a decided prevalence of spindle cells, especially in the second tumor, the one of recent origin. The second excision of the first tumor on the thigh showed a much greater predominance of the cellular elements than at the first excision.

Patient has been steadily, although very slowly, losing weight; he still complains of pain in the region of the stomach and under the sternum. Percussion over the entire chest reveals no abnormal dulness. Lately a large number of very slight uncolored protuberances or thickenings in the skin have been observed, too slight to be felt, but plainly visible when lights fall on patient's skin from an angle.

In view of the general symptoms, and especially of the microscopical examination, the diagnosis of multiple sarcoma of the skin, probably secondary to sarcoma of some internal organ, seems justified.

MICROÖRGANISMS AND THEIR RELATIONS TO DISEASE.

By S. M. Mouser, M.D., San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

Half a century ago the physician who would have asserted that disease was an entity would have been indicted by his orthodox brethren for heresy. Within the recollection of many here present, disease was thought to be a perverted physiological action, depending on the failure of some one or more organs of the body to perform their legitimate function; a lack of harmony of function, which was in most cases not well understood. There was a faint suspicion that some undefinable thing, entering the system from without, caused malarial fever; and it was even hinted that it might be a fungus, but the prevailing opinion was that it was caused by gases arising from decaying vegetable matter, producing chemical changes in the blood. Fermentation was supposed to be an important factor in the production of disease, and it was generally admitted that this was a process due entirely to chemical action, until it was proven by Pasteur and others that every fermentation has its special ferment, and that it is a living organism. This was an important epoch in the history of medicine, and physicians began seriously to turn their attention to the proposition that possibly the microbes, which were known to be floating in the air, might figure as the cause of disease.

About the middle of the present century microörganisms were discovered in diseased and dead animals, which led some investigators to suspect that they might be disease-producing. About that time Davaine discovered anthrax in cattle suffering from splenic fever, but its true significance was not known to the profession until 1863, when he demonstrated by cultivations and inoculations that it was beyond doubt the cause of the disease. This gave fresh impetus to the study of bacteriology, and was the dawn of scientific medicine. Since then rapid strides have been made until the cause of most infectious diseases is known and the germs which produce them have been recognized, and proved by cultivation and inoculation to be such. The pathogenic property of this organism being known, scientists turned their attention to its classification, and decided, with a few dissenting authors, that it belonged to the vegetable kingdom.

In 1870 Dr. Beale, of London, wrote a book entitled "Disease Germs," in which he states that the vegetable nature of disease germs has been disproved, but does not say how or by whom. He does not allude to Davaine's discovery, although seven years had intervened between it and his publication. He declares disease germs to be an excess of bioplasm, originally furnished as pabulum for the various tissues of the body, and when the economy has appropriated all that is necessary for its growth the excess becomes a foreign substance, not only unnecessary but deleterious. That it does not die, but remains living matter, which not only interferes with the growth, but has a tendency to destroy that tissue for which it was originally intended as nourishment. He intimates that in some mysterious way these particles of refuse bioplasm may possibly become the germs of special diseases. This was truly a *germ theory*, as he offers no proof to sustain his proposition. We sometimes yet hear about the germ theory, though the accumulation of evidence, backed by experimental research, should have rendered the term obsolete.

The germs of most infectious diseases, as we now understand them from a bacteriological standpoint, consist of microörganisms, known by the general term bacteria. I say *most*, because there are some diseases known to be infectious, the germs of which are not known to bacteriologists. I use the term bacteria in a general sense, not wishing to enter into nice distinctions in nomenclature, as it is not in accordance with the object of this paper.

Although you are all probably familiar with the organisms under consideration, a brief description of some of their sensible properties and natural history may not be amiss. I shall briefly refer to a few with which we are more immediately concerned, in a general way, not intending to deal with individuals, but classes; leaving individual and minute details to some one else, or for a future occasion.

These minute organisms vary in size from $\frac{1}{60000}$ of an inch in diameter to perhaps 20 or more times that size, and in form from perfectly globular to long, thread-like bodies. The round ones are known as cocci; while those having parallel sides, with greater length than breadth, are called bacilli. We have also spiral forms, which are known as spirilla. There are likewise sarcina, which differ from cocci in their arrangement, and in having one side flattened where they lie opposite their fellows. Sarcina always lie in packets or in pairs, and unless they have been separated by force are constantly found in this position. Cocci are found in masses, enveloped in a gelatinous mass of their own production—zoöglea, or in chains—streptococci. Bacilli lie singly, or by joining end to end form long threads—leptothrix.

All of these organisms, as far as we know, are composed of the same material—protoplasm covered by a cell wall. These, as well as higher organisms, are divided into distinct species, but cannot be recognized as such by their morphology alone. Some of them are morphologically so nearly like others that it is impossible to distinguish them except by carefully observing their natural history, in which they may be found to differ very widely. Their macroscopic appearance, when grown on artificial culture media, is usually characteristic, and one of the means of recognition. The form, color, etc., which the colonies assume, being pretty constant with each species.

They vary in their requirements as to the surroundings, moisture, temperature, etc., and also as to food material. Some may become dessicated, and remain so for a long time to revive and grow again when the requisite conditions are restored. They vary in regard to the temperature best suited to their growth, as well as in their thermal death point. Some of them grow well at a temperature as low as 20°, while others require a temperature of 40°. Some survive for an indefinite period when frozen in ice, and thrive and multiply when the requisite temperature is restored.

They differ very materially in the manner of their reproduction. as some simply divide, becoming two individuals, while others are spore-bearing and reproduce themselves in this way. Much more might be said of their sensible properties and life history, but I have already occupied too much of your time on this point. I wish, however, to say a word as to their attenuation. They become attenuated at a temperature somewhat above that necessary for their growth, and by frequent artificial cultivations, and are again restored to their former virulence by being inoculated into and passing through the animal economy. That these organisms are disease producing, and that special kinds produce special diseases, is a fact too well established to require proof, or even mention here.

They are found everywhere. In the food we eat, the water we drink, the air we breath, and the earth we walk upon, and they enter the system in various ways. Those whose habitat is in water, as cholera bacilli, may enter through the stomach, finding lodgment in the alimentary canal. Of course those found on any article of food may enter in the same way, and find the same lodgment. Those floating in the atmosphere enter generally by way of the respiratory organs, finding a resting place in the parenchyma of the lung or air vesicles, whence they pass readily into the circulation. They may be injected directly into the blood vessels, or, coming in contact with the surface denuded of cuticle, are taken up by absorption and enter the system in this way. They may also be injected into the connective tissue beneath the skin, or into the peritoneal cavity. It is quite probable that there are other avenues of access, but those enumerated seem to be the principal ones.

Nature has placed guards at these different avenues, to prevent invasion: the cilia, which are in constant motion in the respiratory organs; the gastric juice in the stomach, which by its chemical action is calculated to destroy them; and the inflammatory condition set up by puncture or abrasion of the skin. In the latter case, a wall is erected to prevent further invasion, the injured point being surrounded by a barrier of lymph and white blood corpuscles. Notwithstanding all of these defenses, many invaders pass the sentinels, and become ensconced in their new abode, and then comes the effort at expulsion or destruction.

The process of expulsion or destruction of microbes after they have entered the system, is called phagocytosis, and the agents by which this process is carried on, are called phagocytes. Most prominent among these are leucocytes, which seem to be the natural defenders of the system against invasion by pathogenic bacteria. They are said, however, to be aided by improvised phagocytes, enlisted from different parts. Splenic cells are said to play an important part in this work, and the fixed cells of the liver and other organs are said, on urgent occasions of need, to be changed into giant cells, with phagocytic tendencies, to aid in the expulsion of the enemy, and to again resume their normal functions as fixed cells when this emergency has passed.

It has been proven that blood serum exerts a powerful influence in the destruction of microbes. It is an established fact that the system is less likely to be affected when microbes are injected directly into the circulation than when injected into the connective tissue. Much speculation has been indulged in as to the particular thing which resists their growth in the body. Mechanical and chemical resistance have been largely alluded to, but it is, I think, quite likely that there is also a peculiar vital resistance which is not yet understood.

Nuttall and others have made some valuable observations relative to the effect of blood serum on their growth, by which it has been ascertained that many of them are destroyed, or fail to grow, when placed in contact with serum of recently drawn blood, but that the serum loses its power to destroy or to retard their growth after a few hours. This would seem as though there had been a vital force at work, and that when vitality had wholly ceased, the serum had no longer phagocytic power.

On examination of the blood of animals suffering with infectious disease, microbes are sometimes found in large numbers within the white blood corpuscles, and it has been questioned whether they had been captured while living, or whether they were gathered up after death for removal. I am inclined to the former opinion.

The animal economy, after having once been invaded by some of the pathogenic bacteria becomes immune, which immunity continues indefinitely, but just how this immunity is brought about is a matter not definitely settled. Some suppose that it is in consequence of a poisonous product of a first attack or inoculation, which is left in the system and is ever ready to repel a fresh attack. Sternberg is inclined to favor this theory, from the fact that serum from an animal rendered immune by inoculation, when injected into one to be inoculated, prevents the growth of the virus, or if injected after inoculation, stops the progress of the disease. There has been much discussion on this subject, and as yet a great deal of difference of opinion exists.

That there are certain conditions of the system necessary to favor the growth of special disease germs is highly probable, as we notice in artificial cultivations that a strict observance of conditions is essential to success. When the vital forces are in full vigor, there is less chance for a successful lodgment of disease germs than when, from any cause, a weakened and depressed condition exists. While the weakened system is more liable to be attacked by infectious disease, there can be no special infectious disease without the special germ. There is a notion prevalent amongst laymen that diphtheria, small-pox, scarlet fever, etc., may be produced by a common cause, a foul sewer for instance. These may all come from one locality, but each specific germ must be there in order to produce each specific disease. This is a matter too well understood to require argument.

Not the least important feature of the application of bacteriological knowledge is its value in diagnosis. Not infrequently we meet with obscure cases, the nature of which may be made clear by microscopic examination, and when the diagnosis is clearly settled it may be of vast importance to the patient, and of great satisfaction to the attendant. It is not only a matter of physical suffering, as sometimes a moral question is involved that may affect the happiness of families. It would not be prudent for a medical man to pronounce positively that his patient has tuberculosis, until the bacillus of tuberculosis is found; nor to declare he had gonorrhea until he had found the gonococcus.

We have much to expect from the bacteriologist in the way of prevention of infectious diseases, not only by causing immunity by inoculations with attenuated virus, but by pointing out the habitat and manner of their invasion of the system. To be forewarned is to be forearmed; so that if we have familiarized ourselves with their natural history and noxious properties, fully understanding their tactics, we are better able to repel their attacks.

It is necessary not only to guard the portals through which they are known to enter, but, as far as possible, to place the system in a condition unfavorable to their existence after having gained admission. I have already alluded to their exacting demands when grown on artificial culture, and we have reason to suppose that they are equally fastidious when ensconced in the living body. Much may be done by making their new quarters distasteful. It is not so easy to do this as one might suppose, but it is an important means of ridding ourselves of their presence.

Of course, disinfectants play an important part in the prevention of infectious diseases, but their application to infected living bodies is not so available.

The antagonism of different species of microbes is receiving the attention of bacteriologists at the present day, with a prospect of beneficial results. We have been advised to fight fire with fire, and orchardists are importing insects to destroy other insects, taking their choice between evils. It has been suggested that microbes would obey the same laws, and trials have been made successfully. Several eminent bacteriologists have been and are making experiments in this direction by inoculating with the streptococcus of erysipelas persons suffering with cancer, and the results are said to be highly satisfactory. Patients suffering with diphtheria and some other infections have been similarly treated, with like results.

In some of these experiments the question has arisen as to whether the remedy might not be worse than the disease? In inoculations with the streptococcus, erysipelas has not always been the result, but even in the cases of failure to produce it, it is said to have had a beneficial effect, so far as the cancerous or other original disease is concerned.

Experiments have been made by inoculating non-pathogenic organisms into the infected animal, and have proved to be entirely satisfactory. Should further experiments fully prove the efficiency of these non-infecting organisms and their entire harmlessness, we will have placed in our hands a powerful weapon with which to combat our enemies.

Reasoning from analogy, we have good ground to believe that these important results have been attained, as we know by experience in laboratory work that when two or more species are planted upon an artificial medium, and upon which either, when in sole occupancy, would thrive well, that one will thrive better than the others, or crowd them out entirely. With all the facts in this war of races before us, we may reasonably expect important results from further investigation.

There are two modes of death in infected animals: one mechanical, the obstruction of the capillary circulation, and the other by a poisonous product of bacteria, called ptomaines, the latter prevailing in a majority of cases.

It was formerly believed that ptomaines were the products of bacteria of decomposition, and were found only in dead and decaying animal matter. This, however, has been proven not to be the case, so that it is now pretty well settled that they may be produced by bacteria within the living body, and that their toxic properties cause the death of the host.

As already stated, there are some infectious diseases, the germs of which are not well known. Klebs, in his study of malarial fever, discovered a bacillus which he claimed to be the cause of the disease, but the researches of other bacteriologists have not confirmed his opinion. Laveran and others have discovered amebiform bodies in the blood of persons suffering with malarial fever, to which they ascribe the disease. They vary in form, some being crescentic, while others are irregular in shape, and are supposed to represent the different types of the disease. They are called plasmodia, and are entirely different in appearance from bacteria.

While they are generally admitted by bacteriologists to be the cause of malarial fever, they have never been proven to be such by the usual tests of cultivation and inoculation. The blood of persons suffering with malarial fever has been inoculated into healthy subjects and has produced the disease, but this can hardly be considered proof positive that these ameboid bodies are responsible for the result. Until pure cultures can be made outside of the body, and then inoculated into the healthy subject, producing the disease, their office in the pathological process can hardly be considered a fixed fact.

Whether these bodies enter the system in their present form, or whether they are evolved from the plasma of the blood, by the influence of something else taken into the system from without, I think is worthy of further investigation. We know that amebæ are abundant in stagnant pools, and that after having been long dessicated, when placed in favorable surroundings, they resume their activity. It is not unreasonable to suppose that in this dessicated condition they may rise on currents of air and enter the system through the respiratory organs. They are usually found in the red blood corpuscles, and not in the leucocytes, which are supposed to be scavengers and defenders of the system against intruders.

These plasmodia correspond to the description given by Beale, in the works above alluded to, of disease germs in general, and were probably known to him, though he does not allude to them as specially connected with malarial fever.

There are a number of diseases which are positively known to be infectious, the germs of which have not yet been recognized, and, although rapid strides have been made in bacteriology within the past quarter of a century, there is still a vast field open to this line of investigation.

705 Bush street.

SERUM OR PHAGOCYTE—WHICH?

By **Henry E. Sanderson**, Ph.B., M.D., Assistant to the Chair of Principles and Practice of Medicine, Cooper Medical College, San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

The self-limitation of *certain* diseases has been a fact long familiar to us; but never before has the profession so fully recognized the *general* law of self-limitation in disease as at the present time. Not long ago we were content with explaining the problem by the high sounding *vis medicatrix naturæ.* Now, led by the impetus given to scientific research by bacteriological discoveries, our investigators are trying to unravel and to explain the workings of nature, and to make known her methods.

As in all the arts and sciences the final recourse is to the study and imitation of nature, so we in medicine are being led to the study and imitation of nature's methods in the prevention and cure of disease. The barbarian knew no other methods in dealing with problems than a resort to force and subjugation, while civilization teaches that mutual aid and coöperation is the better plan. So we, having tried to fight mysterious force by counter-force—terming our efforts the "cure" of disease—now begin to realize that we shall accomplish more by a careful study of natural methods, trying to imitate, aid and to coöperate with nature in her struggle with unseen foes.

This self-limitation suggests, if it does not prove, the presence in the body of some bactericidal agent or agents. To aid these, and to introduce new agents for a similar purpose, is the aim and hope of the modern therapeutist. The results thus far of experimental investigations warrant continued work in this field, and instil the hope of eventually deducing such methods of treatment as shall revolutionize therapeutics and verify the dream of the idealist—the prevention and cure of disease through internal antisepsis.

It would seem that several paths should lie open to us in prevention and treatment: (1) The partial or complete avoidance or destruction of the cause before its entrance into the body. (2) Such modification of the host as shall make him able to resist virulent parasites by rendering his tissues and fluids unsuitable media for them. (3) Destruction of the virus after its entrance. (4) Destruction of the parasite after its entrance. (5) Neutralizing the action of the poison by the use of physiological antagonists.

How, then, does nature direct her armament? A number of theories have been advanced, all of which concern either the blood and other fluids or the living cells. The leading hypotheses at present in the field are known as the "phagocyte" theory and the "serum" theory.

In the former, which was first advanced by Metschnikoff, in 1883, certain cells possessing the power of ameboid movement are the protectors of the system against parasites, acting by individually surrounding and enclosing the invaders that they destroy. These phagocytes are attracted to microbes (as indeed to all foreign bodies in the tissues), and the frequent presence of the microbe within the phagocyte is given as proof of the latter's destructive power. It has been found, however, that some microbes attract, while others repel the phagocyte, and the more malignant the microbe, the more rarely is it found in the phagocyte. This attraction has been termed "positive chemiotaxis," and the repulsion "negative chemiotaxis."

The chemiotaxis in a given animal is variable, and the phagocytes may be gradually attracted to substances in a mild form, from which they shrink when the latter are in concentrated form. Hence, inoculation of an animal with attenuated virus may change the negative to the positive chemiotaxis, and lead the phagocyte after a time to attack similar microbes, but of a more malignant character should the necessity arise. It is also claimed that the phagocytes prevent bacteria usually present in the lungs, intestines, etc., from entering the blood current, and consequently from attacking the system at large.

It is said that influences which lessen these properties of the phagocytes, increase the susceptibility of the individual to disease, so that organisms which would otherwise be innocuous, enter the general circulation as pathological agents. It has been found that rabbits, which are ordinarily unaffected by anthrax bacilli, yield to that disease, when the non-pathogenic bacillus prodigiosus is injected at the same time. Does the growth or presence of this bacillus supply some needed pabulum for the anthrax bacillus, or does it produce some alteration in the phagocyte?

The phagocyte theory seems a plausible one, but as yet it is little more than a hypothesis, and like every other hypothesis, it has aroused controversy. Those who are at present arrayed against the doctrine of phagocytosis, are the champions of the "serum theory," which regards the fluids of the tissues, especially the blood-serum, as an active agent in repelling the invasion. According to their views, the bactericidal property of the body is due either to certain albuminoids, or to special states of the serum-globulin.

The substances supposed to be endowed with such power, are termed "defense proteids," but no attempt has as yet been made to define their distribution in the tissues. Some also claim the existence of "attenuating proteids" in the serum of animals refractory to certain diseases. Others assert that the serum defends the organism against infection, not so much by its direct action upon the bacteria, as by its indirect action in rendering the tissues unfavorable to the pathogenic agent, by modifying their nutrition. Thus far investigations have been made only with blood-serum, the aqueous humor, pericardial and ascitic fluids, and with the tissues of the spleen, lymphatic glands, the thyroid and thymus, and "defensive proteids" have been found in each of them.

Let us now take a brief survey of some of the experiments made, with a view to ascertaining the bactericidal qualities of the tissue-fluids and the possibility of utilizing such facts in the treatment of disease. These experiments have been made upon the lower animals, and mainly in connection with anthrax, tetanus, and mouse septicemia. The substances used have been serum, either directly from the blood of one of the larger arteries of an immune animal, or pericardial, hydrocele, or ascitic fluid from the same, and lately extracts from the thymus gland, the spleen, and lymph glands have been used. Sometimes attenuated culture-fluids are employed, and again, attempts have been made to isolate the essential antiseptic proteids from the serum and the culture fluids so as to finally employ the alkaloidals themselves, if we may use the term.

Arterial blood has shown more distinctive action than has venous blood; and fresh blood more power than blood which has been withdrawn a short time. The removal of gases from it did not affect the germicidal power of the blood.

Rise of temperature from 100.4° to 104° F., somewhat increased its germicidal power; above 104° it diminished. A general germicidal power of serum has been disputed; and from the present state of our knowledge on the subject it would appear that each species possesses its special and characteristic qualities of serum. Prolonged observation of each species of animals, as to its bearing toward each species of bacteria, will be necessary in order to determine the germicidal quality of its serum.

Some experimentation with drugs has been made; hydrochloric acid had no effect, tartaric acid decreased, quinine decreased, sodium chloride, as well as carbonate of ammonium, slightly increased, phosphate of sodium, sodium carbonate, and potassium carbonate markedly increased, the bacteria-destroying power of the blood, according to one experimentator, who used rabbits affected with anthrax.

The serum of rabbits previously vaccinated against tetanus, destroyed the toxin of tetanus. Guinea-pigs (which are very susceptible to tetanus) were both rendered immune and cured of the disease by the injection of serum from rabbits rendered refractory by inoculation. One cubic centimeter of a filtered culture of the tetanus bacillus, of markedly toxic character, was mixed with serum from a rabbit rendered refractory to tetanus, and the mixture injected into guinea-pigs, rendering them refractory to subsequent injections of the pure filtered culture-fluid.

A thymus gland extract has been recently used. Rabbits affected with tetanus were cured, others rendered immune by injections of this extract mixed with virulent culture-fluids. A culture of cholera spirilli, made on thymus extract, proved almost poisonless. The toxic properties of diphtheria, typhus, and erysipelas cultures were neutralized by similar admixture, and similar injections proved curative and preventive when used on guinea-pigs and white mice.

Serum-therapy has been used with success upon animals for anthrax and mouse-septicemia. Guinea-pigs have been thus cured with rat-serum, and with albuminoids extracted from the spleen of a rat; while rats and mice have received immunity and cure from the use of certain extracted substances termed albumoses.

Quite recently, this line of investigation has been employed in diphtheria and tuberculosis, the serum from pigeons, dogs, goats, and other animals receiving attention, but it is, as yet, too soon to predict the final outcome of such experiments.

At first glance, it would seem as though we had here two antagonistic ideas: the one pertaining to biological cell-action, the other a matter of the chemical composition of serum. But does the one disprove the other? It seems to me that both may be true; and even admitting the correctness of the serum investigations, the phagocyte theory is still tenable.

''Defensive proteids'' are acknowledged to be obtainable from the spleen, thymus, and lymph glands, all of which consist of cells, potentially phagocytes. Why are not these proteids the weapons of the phagocytes, and why may they not get into the serum after the death of the phagocytes? Or, even granting this to be erroneous, why is it not probable, in the light of present investigations, that both of these, and perchance, still other as yet undiscovered agencies, are employed in nature's effort to protect and defend?

21 Powell street.

MEMORANDA.

A Case of Supposititious Labor.

About 4 A. M. on December 3d, Mr. P—— called me in great haste, and on our way to his house informed me his wife was in labor, and had been for 24 hours. On the previous night he had summoned the family physician who was still in attendance. Consultation had been suggested because of the delay and a suspicion of mal-presentation. A nurse was in charge, the baby wardrobe was warming before the fire, and there was present every circumstance of the usual lying-in chamber. The physician in attendance briefly outlined the history of our patient: The cessation of menstruation nearly *ten* months previous to date, the gradual enlargement of abdomen and breasts, and, in short, an ordinary gestation in all respects other than time. The lady was about 45, rather stout, and quite healthy in appearance, and years before had had two children. The powerful expulsive efforts suggested advanced labor, and I was informed the waters had escaped hours before. My confrere asked me to examine her. While doing so the anxious husband inquired if the child were "crosswise." Meanwhile I outlined the usual landmarks carefully, and noted a gush of waters at the moment. But my finger was in contact with an undilated os. The cervix uteri was normal in size. The womb was small and movable. The "waters" were being expelled from the bladder. In a word, she was not pregnant, and had not been, a piece of information which the family received with amazement, and which caused me to be looked upon with grave suspicion. However, with the consent of my consultant, I gave her a little chloroform, and presently not only did the pains(?) cease, but the abdomen collapsed. And only then, and not too gratefully, did they accept my decision, and relinquish their purpose of increasing the family forthwith.

OAKLAND, CAL. E. J. BOYES, M.D.

Epithelioma of the Cervix and Ovarian Kystoma (Dermoid) in the Same Patient.[1]

When first seen the patient presented a small polypous growth at the external os; there was also a tumor on the right side of the uterus in the abdominal cavity. Patient was admitted to the German Hospital, and, under ether, the tumor in the abdomen was diagnosed as a fibroid of the uterus. The polypus was removed, the cervix having been split. The mucous membrane of the cervix looked suspicious; a piece was cut out which was diagnosed as epithelioma by Dr. Grazer, and confirmed as such by Dr. D. W. Montgomery. Total extirpation of the uterus through the vagina was decided upon, and was done a few weeks later. When the *cul-de-sac* of Douglas had been opened it was recognized that the tumor on the right side of the uterus was an ovarian tumor, not a fibroid of the uterus. The uterus was removed through the vagina, then the abdomen opened in the linea alba, and the ovarian tumor extirpated. Recovery was uninterrupted. The coincidence of carcinoma and kystoma ovari is not very common; but the condition was also present at a case operated upon at the German Hospital a few weeks ago. A piece excised from the cervix showed carcinomatous degeneration, according to Dr. D. W. Montgomery. There was also a tumor in the left ovarian region. The latter, an intraligamentous ovarian cyst, was removed by Drs. Rethers and Morse during my absence in the east. The operation was difficult, and recovery somewhat interrupted. Upon my return I decided to remove the uterus. The operation was begun through the vagina, but owing to universal adhesions of the body of the uterus on the left side and backward, due to the previous operation, the uterus could not be safely severed from below, and an abdominal incision was resorted to, when the extirpation was successfully accomplished. Recovery was uninterrupted.

San Francisco, Cal. H. KREUTZMANN, M.D.

---

[1] These cases were briefly and incorrectly reported in the proceedings of the California Academy of Medicine of November 18, 1893, *vide* MEDICAL TIMES, vol. viii, No 1, p. 45.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and
HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Antiseptic Treatment of Metritis.—DR. LOULIGOUX believes that many of the cases diagnosed as salpingitis, in which severe pain is present, are really lymphangitis. The swollen and congested glands compress the nerves accompanying the uterine artery, causing extreme pelvic tenderness, and sciatic neuralgia, while in salpingitis, pain is confined to the tubal region. The intermittent character of the pain also contra-indicates salpingitis, in which suffering is constant, though varying in intensity. The treatment proper in these cases is first, to open the swollen and inflamed uterine canal; then to assure uterine antisepsis. After securing asepsis by daily injections of sublimate solution (1:1000) for two or three days, introduce a hysterometer, which will indicate the direction of the uterus and the size of the tent required. The tent must be rendered aseptic by soaking in a sublimate solution (1:1000) and its use followed by vaginal irrigation and the application of a dressing of iodoform gauze or absorbent cotton saturated with a solution of sublimate. On the following day a larger tent should be introduced in order to insure easy access to the uterus. Dilatation is usually well borne, and is never followed by a rise in temperature; it nearly always causes an abundant purulent discharge, which necessitates thorough uterine irrigation before continuing treatment. After the uterus is well dilated, introduce a tampon of iodoform gauze, made of strips about 15 inches long and 2 inches wide, saturated with creosote and glycerine (1:3). It is unnecessary, in most cases, to draw down the cervix; traction, when the uterus is already immovable from pelvic cellulitis, excites peritoneal pain and sometimes increases inflammation. The tampon should be removed, at first, every other day, and then every day, and the treatment continued two or three weeks, the patient remaining in bed during that time. This remedy acts in two ways: first, by assuring easy discharge of secretions, and secondly, by applying a strong antiseptic to the walls of the uterus. It is most efficacious in those cases in which fissures are small, and vegetations few. In chronic metritis, with villosities, tortuous glands, or hypertrophied papillæ, it is difficult to reach the entire uterine surface, and although marked improvement, or even temporary recovery may result, the diseased parts, untouched by the antiseptic, give rise in time to new colonies of microbes, which reinfect the entire uterus. These cases require thorough curettage, especially complete at the tubal openings; after which, the fungoid growths are removed by a warm intrauterine injection, the entire surface can be cauterized by the application of the tampon previously described. This method of treatment gives the best results when the tubes are not completely obliterated. If the tubal openings remain closed, we may cure metritis, and lymphangitis, but the tubes, shut off from the uterine cavity, become the seat of independent disease. Laparotomy then remains our only resource.—*Gazette de Gynécologie*, December 1, 1893.

Treatment of Uterine Cysts.—M. J. CHÉRON thus formulates therapeutic indications in uterine cystalgia and the manner in which they should be carried out: (1) Combat painful contractions of the vesical muscle. (2) Relieve the catarrh ordinarily accompanying and increasing cystalgia. (3) Diminish irritability of the genito-spinal center. Belladonna, hyoscyamus, bromides of ammonia, potash and soda are useful in relieving muscular spasm; but this end is more quickly and more surely attained by the use of bromide of camphor, whose antispasmodic action is remarkable, when used according to the following formula: Bromide of camphor, gm. 2, in 20 pills. One pill four times a day. Thuja occidentalis, which is largely eliminated by the urine, soon modifies catarrhal conditions of the urinary passages; 30 or 40 drops a day may be given, in 10-drop doses, with a little rosewater. Irritability of the genito-spinal center can be controlled by a slight revulsion of the lumbo-sacral region, accomplished by small blisters, actual cautery, or prolonged and repeated applications of a liniment composed of: Chloroform, gm. 10; ether, gm. 15; spirits of camphor, gm. 90.—*Bulletin Générale de Therapeutique*, December 15, 1893.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Post-Graduate Department University of California, San Francisco.

Surgery of the Ankle-Joint.—An ingenious and interesting operation is reported by TENIER and HENNEQUIN (*Rev. de Chir.*), in which they reproduced the functions of the ankle-joint after the loss of the inferior extremity of the fibula and the absence of the internal malleolus. They conclude that this operation demonstrates the possibility: (1) Of making exclusively from the end of the tibia a joint which allows little to remain wanting in function, and nothing in solidity or regularity. (2) Of preserving entirely the position, the direction, and the function of tendons displaced during the operation, accomplishing this by not opening their sheaths, but removing with them the adjacent periosteum to which they are adherent. (3) Of creating a reärthrosis, so to speak, in its entirety, reproducing with fidelity the normal articulation, and to a certain extent all its movements, except that the tibial surface was made in spongy bone tissue, and in consequence was devoid of cartilage, and the astragalus had lost part of its cartilaginous surface through fibrous degeneration. The patient recovered completely the use of the foot, and could walk with ease, though flexion and extension were slightly limited.—*American Journal of Medical Science*, January, 1894.

A Case of Rupture of Both Quadriceps Extensor Tendons.—S. A., aged 44, was admitted into Sheffield Union Infirmary on March 22, 1893, with the following history: Two days previously, in crossing the street, a man ran against him, causing him to fall. He rose with difficulty, and experienced great pain in his left knee-joint. In attempting to walk he again fell, after which he was unable to move either leg. He was taken home in a wheelbarrow. When admitted, both knees were somewhat distended and slightly bruised. A distinct gap could be felt above the patellæ, which were movable, and could be tilted away from the femora. The detached ends of the tendons were separated by a space of 1½ inches from the patellæ. The lower extremities were fixed on an inclined plane, with strapping arranged so as to bring the patellæ and tendons into apposition. They were left thus for seven weeks, in which time he was allowed to move his legs. Gradually he was assisted to stand and walk. At present he can walk fairly well on level ground, with the aid of a stick? There is still a space between the patellæ and tendons, and he cannot fully extend his knees. After he has endeavored to staighten them, one can, by taking hold of his legs, extend them still further. Both his legs are curved forward and outward, presumably from childhood, though he gives a history of fracture of both tibiæ. He is a stunted, sturdy man, with no history of syphilis. In July, 1892, I attended him for a fracture of the neck of the left humerus and chronic ulcers on both legs, which are now healed. As far as I can find, this is a unique case. In the *Lancet*, Vol. I, 1888, p. 178, a case is recorded of rupture of both tendons within six years of each other. Mr. Joseph Bell, Edinburgh, in his clinical lectures, if I remember rightly, used to relate a case of fracture of both patellæ caused in a similar manner. I may state that the patient refused any operative treatment in the way of suturing the tendons to the bone.—DR. J. LEWIS OWEN, in *British Medical Journal*.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

The Treatment of Blepharitis Marginatis by Hydrogen Dioxide.—DR. S. C. AYRES recommends hydrogen dioxide in preference to the ointments which are generally used in this condition. The crusts and secretions should be removed by first softening them with tepid water. Then a little cotton is wrapped around a Japanese tooth-pick, which is dipped into the dioxide. The cotton is then wiped over the entire edge of the lid. The characteristic bubbling will follow, and the application is repeated until the bubbling ceases. The ulcers will then present a whitish appearance. With care none comes in contact with the conjunctiva. The treatment should be used daily. Any intelligent person can apply the remedy at home.—*Medical News*, December 23, 1893.

Quinsy and Its Treatment by Early Incision.—DR. J. W. BRANNON concludes a paper on this subject as follows: (1) In quinsy the inflammatory process is usually situated without, and not within the tonsils. (2) If pus forms, it should be evacuated at the earliest possible moment. (3) Unless there are signs of pointing elsewhere, the incision should be made through the soft palate backward. (4) If the tension of the parts is very great, the incision is indicated; even though pus has not formed. (5) If ordinary surgical care is exercised, there is no danger of wounding the internal carotid artery. (6) In case of deep-seated inflammation, in which pus comes to the surface slowly, erosion of the arteries in the neighborhood may take place. In such case, therefore, we must be ready to deal with arterial hemorrhage at the moment the abscess discharges into the pharynx.—*Medical Record*, October 28, 1893.

Strong Solutions of Hydrogen Peroxide in the Treatment of Diphtheria.—DR. F. H. WILLIAMS, in an article on "Diphtheria and Other Membranous Throat Affections," recommends the stronger solutions of peroxide in the treatment of these diseases. The solutions usually sold have a strength of 7.5 to 10 volumes or less. These strengths are not active germicides. Solutions of a strength of from 25 to 50 volumes are efficient germicides and have the quality of breaking up and disintegrating certain portions of the diphtheritic membrane without injury to the healthy tissues. Solutions of the desired strengths cannot be obtained in market, but can be made by evaporation of a 10-volume solution in a shallow, open dish, over a water bath, to ⅓ or ⅙ of its bulk, which would make a 25 and 50-volume solution, respectively. The 25-volume solution may generally be applied every 4 hours during the night and more often during the day, by means of a spray. A few drops of the 50-volume solution to the membrane, with a swab, until the membrane is gone or much diminished.—*American Journal of Medical Sciences*, November, 1893.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

Syphilis as an Infectious Disease.—DR. H. J. KLOTZ, in a paper on this subject (*Journal Cutaneous and Genito-urinary Diseases*), reaches the following conclusions: Syphilis is caused by a microörganism similar to those of the acute exanthemata. Primary and secondary local manifestations are due to the direct influence of this parasite. Its presence in these lesions is proved by their contagiousness. The general symptoms accompanying the stages and immunity are the result of the action of toxines. The microörganisms, under the influence of their own chemical products, or under the influence of treatment, or in consequence of their own innate character, are either eliminated, or become extinct, or undergo some modification, or produce a new kind or species of microorganism. This secondary parasite, which is similar to the bacillus of tuberculosis, can indefinitely remain in the organism, in a dormant condition, until called into activity by some accidental irritation. Accidental irritation produces the tertiary (gummatous) manifestations; but not the visceral affections, like tabes, general paralysis, etc., which are the result of intoxication with the toxines of the primary parasite. The secondary microörganism is inoculable, like the bacillus tuberculosis, and produces lesions identical with the tertiary syphilis, but not primary syphilis. Tertiary syphilitic manifestations may, therefore, be due to direct inoculation without the necessity of a primary or a secondary stage.—*Medical Record.*

DR. R. W. TAYLOR, in opening the discussion, carefully reviewed the conclusions drawn by Dr. Klotz in his paper. As regards the statement made by the author, that syphilis is caused by a microörganism similar to those of the acute exanthemata, Dr. Taylor said that our present knowledge on this point is only based on presumptive or analogical evidence. We do not know positively that the disease is caused by a microörganism. Lustgarten and others, by various methods of staining, have found certain bacilli in syphilis; the results of these bacteriological investigations differ from each other, and experiments have not been followed up by culture-growths or inoculation, therefore do not come up to the requirements of Koch as to the identity of a given parasite. The protoplasmic changes which take place in syphilis are the reproduction, *ad infinitum*, of the cells in the original lesion. That the general symptoms accompanying the disease and the impairment of nutrition are due to the toxines secreted by these cells, as stated in Dr. Klotz's paper, is based on the theory that there is a primary microörganism in syphilis, which, under the influence of its own chemical products, or of treatment, or in consequence of its natural innate character, is eliminated, or undergoes some modification, or evolves a new kind of species of microörganism, and that this secondary parasite produces the tertiary gummatous manifestations—all this must be regarded as pure conjecture. We are not in a position to-day to generalize upon the microbic action of syphilis. The data upon which the conclusions are based are not satisfactory; the cases are not conclusive. Clinical observation rather goes to show that the tertiary manifestations of syphilis are the result of a low grade of inflammatory process that has been left over from the second stage. Because we observe tertiary lesions in patients from whom we can get no history of any previous specific manifestations does not necessarily imply that those lesions are the result of direct inoculation. The primary and secondary symptoms are often very slight. The syphilitic roseola may be so faint that it readily escaped detection. This is also true of the papular syphilide. The initial lesion of the disease may pass undiagnosed. It may be on the tonsil, giving rise to very little trouble, or it may be a small herpetic vesicle on the lip. The chancre may simply appear to be a slight excoriation of the mucous membrane.—*Journal Cutaneous and Genito-Urinary Diseases*, January, 1894.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

The Moderate Use of Alcohol.—The unique position of the medical man in regard to the question of alcohol, imposes upon him a high responsibility which has been fully recognized, and the one consistent note in the advice given by all the prominent men in our profession has been moderation. In all intelligent society not only has drunkenness decreased, but the consumption of strong wines has diminished, and the restriction of the use of wine to mealtimes has become more common. These real gains are sadly inadequate, in the judgment of the extreme teetotaler, who would like an unmitigated curse to be pronounced on alcohol, and its use to be absolutely interdicted. When a medical man, with the judicial impartiality and scientific accuracy of his profession, ventures to say a word in favor of the agent, the teetotaler is apt to lose self-control and denounce the man, who is as sincerely convinced of the evils of alcoholism as he is, but differs from him as to the way in which they should be met. Such was the experience of SIR DYCE DUCKWORTH, who was greeted with "slight applause, mingled with hissing," at a temperance convention which he had addressed on the physiological effects of alcohol on the human organism. The following are summarized conclusions of the speech, which provoked expressions of disapproval: (1) That it had not been proved that the moderate use of alcohol was hurtful to the inhabitants of Europe and was necessarily prejudicial to civilized nations. (2) That the most enlightened nations had, as a rule, made use of alcoholic liquors. (3) That there existed no enlightened testimony to show that the moderate and simultaneous use of alcohol and of sound food could injure the organs of the human body; that, on the contrary, there was ample proof in support of the assertion that such a use was beneficial and that the legitimate and rational use of a thing by no means justifies its abuse. (4) That for many people complete and continual abstinence from alcohol was not at all to be recommended, and that it was recognized that such a course of conduct, employed as an exemplary measure, had never, with any people, succeeded in bringing about the disappearance of intemperance. (5) That the majority of the posterity of drunkards and of persons of an ill-balanced, nervous system, would do well to abstain altogether from alcohol; or at least before partaking of it to consult a competent and experienced physician. (6) That the use of impure and adulterated alcoholic drinks is attended with many consequences more or less disastrous, and that the extreme physiological limit which the individual constitution can support ought rarely to be reached, most certainly not passed. (7) That the young should be instructed, as part of their education, to recognize the proper and legitimate use of alcohol, and to moderate and subjugate their appetites.—*Lancet.*

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Professor of Pathology, Cooper Medical College, San Francisco.

Contagiousness and Inoculability of Cancer.—DUPLAY and CAZIN (*Semaine Médicale*) sum up all that is so far known respecting the transmissibility of cancer. They consider the question of the parasitic nature of cancer as still "without sufficient facts to support it." They maintain that of all the modes of transmission of cancer, there is only one respecting which everybody is agreed, viz: that which consists of what is called auto-inoculability. Numerous cases are on record where patients, already the subjects of cancer, have been inoculated in some sound part of the body with fragments of the same cancer. Transplantation experiments with cancerous fragments to the bodies of healthy individuals, having no predisposition to malignant growths, are negative. This is also true of experiments on animals. The essential condition of the development of malignant neoplasms consists in a special predisposition, certainly hereditary, which we cannot at present define. The comparison of cancer to tubercle is not tenable; inoculations with tubercular products are, as a rule, positive, whereas with cancerous products the results are negative. The authors conclude that while nothing at the present time warrants us in believing in the direct contagiousness of cancer, we are none the less convinced of its infectious nature, dependent on a process of which we are still completely ignorant. We have no right to speak of cancerous patients as if they were possible sources of infection.—*Boston Medical and Surgical Journal.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Admissibility of Expert Testimony not Based on Personal Experience.—In a recent decision of the Supreme Judicial Court of Massachusetts, in the case of Finnigan v. Fall River Gas Works Co., it is said: "Although it might not be admissible merely to repeat what a witness had read in a book not itself admissible, still, when one who is competent on the general subject accepts from his reading as probably true a matter of detail which he has not verified, the fact gains an authority which it would not have had from the printed page alone, and subject, perhaps, to the exercise of some discretion, may be admitted." The action was against a gas company to recover for the death, by inhaling gas, of an employe of a city water board while in the gas company's cellar for the purpose of reading the water meter, pursuant to his duties. One of the doctors summoned as witnesses in the case testified that the deceased had a period of conscious suffering before death. The doctor admitted not having had any experience of this kind of asphyxiation personally or with patients; his general competency as expert was, however, not questioned. The court therefore said, that it could see no sufficient ground for saying that the testimony admitted in the case could be treated as furnishing no evidence of the fact.—*Medical News*, October 7, 1893.

FORMULÆ.

By Geo. B. Somers, M. D., San Francisco, Cal.

Erysipelas.—The following are several methods of treating this disease:

I. Juhel Renay employs:

Gutta percha	ʒ vi
Chloroform	ʒ vi
Ichthyol	ʒ viii

The erysipelatous spot is surrounded with this syrupy mixture, then it is covered with an ointment composed of equal parts of vaseline and ichthyol.

II. Tichhorst Koenig and Nolée have employed:

Carbolic acid	ʒ ss
Spirits of turpentine	*ad* ℥ i

Paint the affected parts every two hours.

III. Rothe covers the affected parts with an ointment made as follows:

Creolin	ʒ ss
Prepared chalk	
Lard	āā ℥ ss
Essence of peppermint	gtt xl

The patient feels an agreeable sensation of coolness and the results are excellent.—*Union Médicale.*

Diabetes.—Harley states that croton chloral often produces surprising results. A good formula is as follows:

Croton chloral	gr. ½
Opium	gr. i
Ext. of Barb. aloes	gr. ⅙
Ext. of gentian	gr. iss

S.—For one pill. One to be taken three times a day.—*British Medical Journal.*

Hemorrhoids.—In recent cases Mundé recommends:

Burgundy pitch	gr. v-x
Extract of opium	gr. ½-i

Make into a suppository.

S.—Use at bedtime and again after the bowels have moved in the morning.—*Northwestern Lancet.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for December.—The deaths registered in 90 town districts of the State, during the month of December, in a population of 814,739, correspond to an annual rate of 17.26 a thousand, the total mortality having been 1,105. 87 deaths were due to zymotic diseases, giving an annual rate of 1.27 a thousand. Of these, 24 were due to diphtheria, 6 to cholera infantum, 24 to typhoid fever, 10 to diarrhea and dysentery, 6 to cerebro-spinal fever, 5 to whooping cough, 4 to croup, 4 to intermittent and remittent fevers, 4 to scarlet fever, 0 to measles, and 0 to small-pox. 330 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.40 a thousand. Of these, 161 were due to consumption, 112 to pneumonia, 46 to bronchitis, and 11 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.28 and 1.56, respectively. 96 deaths resulted from diseases of the heart, 13 from alcoholism, 5 from erysipelas, 30 from cancer, and 479 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 575,400, was 17.16. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Alameda.

METEOROLOGY.

Summary for December.—*Temperature.*—The normal temperature of the State for December is 53°, the mean for December, 1893, was 50°; a departure from the normal of -3°. The highest monthly mean was 66°, at Salton, in the desert regions of San Diego county, 263 feet below sea level; the lowest, 31° at Summit, in the mountain regions of Placer county, 7,017 feet above sea level. The maximum temperature was 94°, at Downey on the 2d; the minimum, zero, at Boca, Nevada county, (5,531 feet above sea level), on the 30th. The greatest monthly range was 61°, at Tehachapi; the least, 20°, at Sutter Creek. The absolute range of temperature for the State is 94°.

Rainfall.—The normal precipitation for the State for December is 4.42 inches; the average for December, 1893, was 7.24 inches; a departure from the normal of +2.82 inches. The greatest monthly precipitation was 10.81 inches, at the Cresent City light house; the least, a trace or sprinkle, at Indio, Long Beach and Salton.

Wind.—The prevailing direction of wind was southerly.

Unusual Features.—The unusual meteorological feature of the month was the continuation of the abnormally cool weather as compared with averages for December and for the year, making the month of December and the entire year 1893 several degrees cooler in the average temperature than are the normal conditions of the month and year as deduced from a 40 years' record.—James A. Barwick, Director California Weather Service.

California—Tabular Statement for December, 1893.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn .... Cal.	54.0	79.0	35.0	----	----	----	----	3.88	----	----	----	----	S.E.	Southern Pacific Company.
Berkeley .... "	49.0	66.0	34.0	55.0	44.0	11.0	11	2.62	85.0	12	2	17	E.	Obs. University of California.
Colfax .... "	48.0	80.0	28.0	----	----	----	----	4.88	----	----	----	----	N.E.	Southern Pacific Company.
Eureka .... "	47.0	61.0	34.0	53.0	42.0	11.0	9	6.69	94.0	7	11	13	S.E.	Weather Bureau Dept. Agr.
Fresno .... "	48.0	69.0	30.0	58.0	39.0	19.0	8	1.40	78.0	3	14	14	N.W.	" " "
Keeler .... "	45.0	72.0	23.0	54.0	35.0	19.0	3	0.78	46.0	15	10	6	S.E.	" " "
Los Angeles .... "	58.0	88.0	37.0	69.0	47.0	22.0	7	3.65	63.0	16	10	5	N.E.	" " "
Monterey .... "	50.0	70.0	28.0	----	----	----	----	1.87	----	----	----	----	S.	Southern Pacific Company.
Napa .... "	52.0	79.0	31.0	59.0	44.0	15.0	7	1.86	80.0	12	4	15	S.	Station Napa Insane Asylum.
Oakland .... "	51.0	67.0	36.0	57.0	46.0	11.0	6	2.57	96.0	13	7	11	S.E. N.W.	Chabot Observatory.
Paso Robles .... "	48.0	71.0	25.0	----	----	----	----	2.38	----	----	----	----	N.	Southern Pacific Company.
Red Bluff .... "	50.0	76.0	32.0	58.0	42.0	16.0	10	2.64	80.0	14	10	7	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	49.0	69.0	28.0	56.0	41.0	15.0	6	1.76	84.0	14	6	11	S.E.	" " "
San Bernardino "	52.0	80.0	30.0	65.0	39.0	26.0	6	2.28	74.0	19	7	5	W.	A. K. Johnson, M. D
San Diego .... "	57.0	82.0	38.0	69.0	48.0	21.0	6	1.91	74.0	19	5	7	N.E	Weather Bureau Dept. Agr.
San Francisco .. "	52.0	72.0	37.0	57.0	48.0	9.0	8	2.25	81.0	12	4	15	N.W.	" " "
Santa Barbara .. "	58.0	84.0	38.0	68.0	48.0	20.0	5	2.94	64.0	20	6	5	N.W.	Hugh D. Vail.
Santa Cruz ...... "	54.0	78.0	33.0	64.0	44.0	20.0	7	1.80	----	13	8	10	N.W.	W. R. Springer.
Yuma .... A. T.	58.0	83.0	34.0	72.0	44.0	28.0	3	0.26	46.0	18	11	2	N.	Weather Bureau Dept. Agr.

T. means a trace of rain. Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: FEBRUARY, 1894

THE MIDWINTER FAIR.

When an invitation was extended, at Milwaukee, to the American Medical Association to meet in San Francisco in 1894, it was not known that the Midwinter Fair would be an accomplished fact. Vague rumors had been heard that such a project was being discussed, and exhibitors at Jackson Park would greet the visitor from the Golden State with the incredulous remark: "You are the people who want to bring the World's Fair to California." At that time no guarantee fund had been raised, nor had exhibits been secured, and the enterprise, at Chicago at least, had met with general ridicule. The foreign exhibitors had but vague ideas of California, and beyond the fact that it was "a few thousand miles" further west, the Land of the Setting Sun was practically a *terra incognita*, but very far west to those who had already come so far. Even the natives of the Eastern and Middle States were as a whole not much better informed than were the representatives of the medical profession from those sections when the project of a meeting in San Francisco was first broached at Milwaukee. The American Medical Association, however, finally decided to make this voyage of exploration into the unknown land, and took this resolution with an enthusiasm that goes a long way to assure the success of the forty-fifth annual meeting. In like manner the Midwinter Fair ceased to be an object of ridicule, and having reached the dignity of an accomplished fact, it soon became an enthusiastic project.

The credit of originating the scheme of an exhibition of the best amongst the foreign exhibits at Chicago, with the addition of displays and special features that would fully represent California, seems to rest with MR. M. H. DE YOUNG, the proprietor of the San Francisco *Chronicle*. MR. DE YOUNG was the representative of California on the National Commission, and, observing the notice that had been attracted to the United States in consequence of the Fair at Chicago, he conceived the idea of obtaining recognition for California in the same way, though of course on a much smaller scale. As showing the climatic advantages of the State it was determined to hold the Fair in "Midwinter," at a time when such a project would be impossible in eastern cities. Except in the high Sierras, California has no winter, as the term is generally employed. During the winter months at Jackson Park when men were employed to shovel snow from the roofs of the buildings that they might not be crushed in, Golden Gate Park was green and beautiful with delicate plants and flowers, blooming, untouched by frost. The selection of this date also made it possible for intending exhibitors to move their goods from Chicago direct to San Francisco without the increased expense of a tedious waiting.

To inaugurate an enterprise of the magnitude of the Midwinter Fair was no inconsiderable task, and opposition, more than encouragement, was freely encountered. At this time the financial panic, that seized the country during the summer and fall of '93, was beginning to be felt, and moneyed men were apprehensive of further disasters. As time passed, the outlook for a business revival was even less encouraging; yet, in the face of these most unfortunate conditions, subscriptions were obtained, funds assured, and on the 24th of August, 1893, the first shovelful of earth was turned on the site of the exposition in Golden Gate Park. This was in what is known as Concert Valley, and, as originally outlined, it was to occupy about 60 acres. Construction was commenced and pushed with unprecedented rapidity. The elements offering no opposition such as was experienced at Chicago, the work could, therefore, be pushed uninterruptedly. Exhibitors and concessionaires multiplied with astonishing rapidity, and it soon became apparent that the original plan of the Fair would be altogether too small. The grounds were extended, the buildings enlarged and new ones added until, at the formal opening of the exposition, on January 27, 1894, it covered 200 acres of ground and included 76 buildings.

Of these structures six are the main buildings of the exposition, viz: Manufactures and Liberal Arts, the largest; Mechanical Arts, the next in size; Horticulture and Agriculture, a picturesque structure in the style of the old Spanish missions; Fine Arts and Decorative Arts; Festival Hall and the Administration Building. Next in importance come the State and county buildings, many of which are very pretentious structures. Finally, there are the concessionaires, our "Midway Plaisance," not confined, as in Chicago, to one locality, but scattered in picturesque diversity about the grounds. Amongst these are many features, interesting, amusing, and educative, that rightly claim more than passing notice. A very brief stay at the great World's Fair was sufficient to convince the intelligent visitor, that to see all the White City contained, and to see it thoroughly, would take months of hard work. The traveler who mapped out his plan of campaign in advance, and with the aid of guide book and map, determined what he should see, saw most and saw it most profitably. In the vastness of space and in the immensity of material was confusion, mental and visual, so that things seen, failed to make a mental impression. These facts are the greatest arguments in favor of the success and of the real value of this Midwinter Fair. Here it has been sought to select, and by careful discrimination, to bring together only the best and choicest of all that was available. The foreign exhibits are amongst the best, while personal and sectional rivalry impels each section to do its very best. The visitor will therefore find, not only an international exposition, but an exposition that is typical of the Pacific coast and illustrative of all California. Here, in a few days, can be learned facts and details regarding every industry and section in the State, that would require weeks of hard work and travel to accumulate.

Finally, local pride demands that a word should be said for the grounds in which the Fair is located. Not for the landscape gardening that is to rival or to surpass the royal gardens of the old world, but for the Park itself, with its variety of hill and valley and mountain, its evergreen verdure, its vistas and prospects, by land and water, the magnificent bay with its Golden Gate, and on its western borders the grand Pacific Ocean. The Midwinter Fair will remain open until the first of July, and will, therefore, be at its greatest perfection when the American Medical Association visits San Francisco. It offers no small inducement to those who may be hesitating to undertake the journey. It has caused reductions in local and transcontinental rates that have never before been presented, and therefore places within the reach of many, a trip to California under exceptionally favorable circumstances.

THE ANTI-CIGARETTE MOVEMENT IN SAN FRANCISCO.

Considerable attention has been recently directed toward the wide spread evil of cigarette smoking among minors. A movement has been started in San Francisco with the object of inducing boys to sign a pledge to abstain from cigarette-smoking until 21 years of age. Many school children have signed this pledge, and the daily papers have taken pains to publish the names of all those who have signed. They have further devoted considerable space to interviews with various persons on the evils of the habit,

The Superintendent of Schools, MR. JOHN SWETT, is quoted as saying: "You have no idea how many girls smoke. It is a fact, I assure you, though you might not think it possible." Many tobacco dealers have expressed themselves in sympathy with the cause, as they say there is no profit in cigarettes, and that the sale of cigars would be increased were cigarettes unobtainable. A number of arrests of cigar men for selling cigarettes to minors have been made with the intention of testing the law on this subject.

The Board of Education has appointed a committee, composed of DR. CLINTON, J. H. CULVER, and J. H. ROSEWALD, for the purpose of investigating the subject and proposing means for suppressing the evil. The following suggestions were made:

First—In our opinion the most radical and efficient way to stop the pernicious habit is by legislation, and we would, therefore, suggest that the Board of Supervisors be requested to pass an ordinance imposing a license of $25 per quarter upon all persons engaged in selling cigarettes.

Second—That the medical fraternity of the city and county of San Francisco be requested to affix their signatures to a document which shall explain in detail the physical evils that result from cigarette-smoking, and that the document be circulated in all the schools of the city.

Third—That the clergy of all the denominations make cigarette-smoking the subject of their sermons on a certain day, to be selected by themselves.

The *Examiner* has had an analysis made by THOMAS PRICE & SON, of several brands of cigarettes. A sample of the analysis is as follows: "We find this sample to contain, in addition to nicotine and the usual constituents of tobacco, chloride of ammonium, niter, and a large quantity of woody fiber other than that belonging to tobacco. It also contains considerable of a soft, pithy material, which strongly resembles the pith or root of some plant other than the tobacco plant. The percentage and character of the ash found were such as to show that the sample is not a pure tobacco."

NOTES.

The National Druggist.

This well known and reliable journal, from whose pages we have often quoted, has recently undergone some changes. It has, for many years, been edited by Dr. Frank L. James, of the *St. Louis Medical and Surgical Journal*, "the oldest monthly medical journal in the United States." Dr. James has recently purchased the *National Druggist*, and therefore becomes both editor and proprietor. The journal, which has been reduced to a more manageable form, will hereafter appear on the first of each month, instead of twice a month, as in the past.

California Northern District Medical Society.

The semi-annual meeting of this Society will be held at Woodland, on Tuesday, March 13. Dr. H. D. Lawhead, the Chairman of the Committee of Arrangements, was a guest of the Sacramento Society at its last meeting, and extended a hearty invitation to all its members to participate. He stated that the local profession was already at work, and that the Secretary had assured him that there would be a good attendance and an abundance of material. This Society is rapidly growing in numbers and is extending its territory and bids fair to be a most important factor in our professional organization.

The Medical Society of the State of California.

The Committee of Arrangements of the State Medical Society has issued its preliminary circular directing the attention of the profession to the fact that the annual meeting will be held in San Jose, April 17, 18, and 19. This circular has been sent to every physician in the State, and has been accompanied by the circular of the Committee of Arrangements of the American Medical Association, and blank applications for membership in the National Association. The visit of the Association to this coast invests the meeting of the State Society with special interest, and there will no doubt be a large attendance. The President, Dr. Kenyon, is an active worker, and may be relied upon to do all in his power to bring about a successful issue.

An Alumni Association for the University of California.

At the reception banquet tendered the class of '93 by the faculty of the Medical Department of the University, the subject of alumni reörganization was enthusiastically discussed, and a committee was appointed to call a meeting of all the graduates, to reconstruct the constitution and reorganize the Association, so as to render it a body of some influence in the community and to make of it a powerful ally of the college. Announcement cards are shortly to be mailed, and it is hoped that every alumnus within touch will be present. There are to be no initiation fees and no assessments. Alumni who have changed their addresses are requested to immediately notify Dr. Edward von Adelung, 836 Sutter street, San Francisco, that they may receive announcements.

The Recent Suicide at Bankshire Place.

The following are the facts of an unfortunate suicide that recently occurred at Bankshire Place, Dr. Whitwell's private asylum, near San Mateo. The subject, a woman over 50 years of age, was chronically insane, type melancholia, with suicidal tendencies and violence. She had been under the doctor's care for the past year, and, although showing physical improvement, there was no material mental change. She talked often of suicide, and said she would certainly hang herself. She showed at times a tendency to violence toward the other patients, and was generally destructive; for these reasons it was often necessary to place her under restraint. This consisted of a canvas jacket, laced behind; the sleeves were long and fastened behind. In or out of restraint she usually sat on the porch, and was under the almost constant supervision of one or two attendants. On the afternoon of the accident she had been placed in restraint, and had been seen within ten minutes. One of the rooms of the hospital opens upon the porch; she went into this, managed to get out of the restraint jacket, took the canvas lacing and put it round her neck. She then, evidently, climbed upon a trunk standing under the iron window guard, and, after tying the other end of the lacing to this, she jumped off. She must have been found almost immediately, but too late to be restored, even by the application of a strong faradic current and artificial respiration. The heart had ceased beating. At the time of the occurrence another patient was being fed, and was making much noise. This prevented the attendant from hearing any unusual noise in the other room. A patient, who is usually very alert if anything unusual is occurring, was sitting just under the window outside, she also failed to hear any suspicious noise. Last April a similar attempt was made by the same patient, but she was discovered in time and quickly brought to. Even under the most careful management distressing accidents of this kind will occur. In the present case it does not appear that anyone was to blame, or that the fatality could have been prevented.

Enterprise, Journalistic and Professional.

Under this heading the *Medical News* discusses the custom, quite common nowadays in certain parts of the country, for the daily newspaper to publish "a special edition largely devoted to biographic and eulogistic notices of 'successful doctors.' The details of the successful careers are blazoned with liberal colors, the office hours, specialties, telephone numbers, etc., following in each case. The fellow who pays the most and furnishes the most glowing and particularized accounts of himself, and who orders the greatest number of hundreds of extra and marked copies for distribution to his *clientele*, is, of course, he that takes the cake. It is mortifying to find certain names in these lists of dishonor." The *Medical News* speaks plainly, but fairly, for this evil seems destined to increase. As Dr. D. W. Montgomery, when President of the San Francisco County Medical Society, well said, it is difficult to see of what possible interest it can be to the public to learn the petty details of the early life and past history of the average physician, nor can there be much credit derived from the vile caricature that often appears as the portrait of the distinguished subject of the sketch. As for his professional career and the wonders he has accomplished, it is even here not easy to see the benefit to be obtained from this kind of publicity. The more intelligent and better-paying portion of the public recognizes this as the method of the quack, and, while perfectly willing to be victimized at times, when something more than ordinary is offered, and at others to be swayed by the influence of occult methods, the physician who repudiates the fellowship of the quack, while adopting his methods, will invariably be looked upon with suspicion. It is quite common in these matters to blame the newspapers, and it is equally wrong to do so. With few exceptions, the modern daily paper is run "for revenue only," and not on principle. Principles are troublesome and they do not pay, so says the "business manager," and he virtually controls the paper, for does he not pay the bills and find therefor the wherewithal? It is in dull times that the keen and active business manager "digs up" these schemes, and they can usually be made quite profitable. We can assure the *Medical News* that this class of business is not flourishing in the far west. In occasional and flagrant cases it has been promptly and speedily suppressed. The action of the San Francisco County Medical Society, not long since, was sharp and decisive, and will serve as a precedent for other bodies that might be more weak-kneed in the protection of their good names.

AMERICAN MEDICAL ASSOCIATION.

Membership in the American Medical Association.—"This is obtainable, at any time, by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own Society, signed by the President and Secretary of said Society, with five dollars for annual dues and subscription for the *Journal*. Attendance as a delegate at an annual meeting of the Association is not necessary to obtain membership. On receipt of the above amount the weekly *Journal* of the Association will be forwarded regularly."

Application Blanks for Membership.—On advertising page xxvii we print a convenient form of application blank that is being circulated by the Association *Journal*, Any physician desirous of joining the Association can cut out this blank, and, having properly filled it, can mail same with his subscription to the Treasurer. As many physicians seem to be waiting for these blanks before joining the Association, it is pertinent to remark that the blank is not a necessity but merely a convenience. The essential is a certificate signed by the President and Secretary of a State or local Medical Society, and this, accompanied by $5, will be duly honored by the Treasurer. Dr. Kerr, the Secretary of the Medical Society of the State of California, has announced that the circulars of his Committee of Arrangements will on this occasion be mailed to every physician in the State, and will be accompanied by blank applications for membership in the Association. Meanwhile our readers will find each month the regular application form in our advertising columns, and we shall be at all times ready to afford any information in these matters.

Circular of the Committee of Arrangements.—The following circular letter has been issued by the Committee of Arrangements, and will be sent to all physicians on the Pacific coast that it is possible to reach:

Dear Doctor: The American Medical Association will meet in San Francisco, June 5, 6, 7, and 8, 1894. The Association consists of delegates and members. Each State and Local Society in affiliation with the American Medical Association is entitled to send one delegate for every ten members or fraction thereof. Any member of such Societies, in good standing, is eligible to membership in the Association, without attending a meeting, on presentation of a certificate of membership in the affiliated Society, signed by its President and Secretary, accompanied by $5.00 annual dues. This entitles him to receive the *Journal* of the Association. It will advance the interests of the profession on the Pacific coast, and will be a fitting evidence of our appreciation of the National Association, if we have a large representation at the meeting, and a larger accession to the membership. United effort will accomplish this, and will assure success. We therefore urge every physician who is not a member of a State or Local Society, to become enrolled as such. If, on account of distance or other sufficient reason, it is impracticable to join an existing Society, it is desirable that he unite with neighboring physicians to form a Local or District Society that will obtain recognition from the State Society where one exists. It will facilitate the work of this committee if you will favor us with the name of your Local or District Society, its membership, and the names of its President and Secretary, together with the names of eligible non-members in your vicinity. A blank application for membership in the American Medical Association is inclosed, which may be filled out and forwarded to R. J. Dunglison, Treasurer, L. B. 1274, Philadelphia, or to this office, with an additional ten cents to pay money order, when we will gladly attend to it. Membership is a prerequisite to entitle one to the privilege of reading a paper in the meeting. Our Midwinter Fair (January to July) is assuming such proportions as will present additional inducements to visit San Francisco, and our hotel and railroad managers are supplementing these by assurances of marked reductions to members of the American Medical Association. We hope the profession on the Pacific coast will turn out *en masse* and give the Association a royal welcome.

R. H. Plummer, Chairman.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, December 19, 1893.

The President, F. L. Atkinson, M.D., in the Chair.

New Members.—J. Nelson, M.D., W. I. Terry, M.D., were duly elected members of the Society. T. A. Snider, M.D., a former member of the Society, was reëlected to membership.

California Northern District Medical Society.—A communication was received from the Secretary of the California Northern District Medical Society, inclosing a formal resolution of thanks extended to the Sacramento Society for its courtesy and hospitality to the visiting members.

Dr. J. H. Parkinson, Chairman of the Committee of Arrangements, presented his report, showing that the subscriptions received toward the entertainment fund had been sufficient to defray all expenses and to permit of the return of a dividend of nearly 50 per cent.

Dr. W. E. Briggs read a paper on "A Case of Severe Hemorrhage Following Operation for Adenoid Vegetations" [to be published]. The hemorrhage was for a time of a most alarming character, and after the anterior and posterior nares had been securely plugged, the blood continued to flow rather freely from the lachrymal ducts.

Dr. J. H. Parkinson had seen the case, and for a time it was certainly quite alarming. Owing to the shallowness of the pharynx, it was exceedingly difficult to adjust the posterior plug. When everything had been secured and the bleeding had, apparently, been controlled, blood began to flow from the lachrymal ducts in quite a free stream. This gradually decreased until the bleeding was finally arrested. The occurrence of a hemorrage from this source certainly indicated the amount of blood pressure in the nasal cavity.

Dr. H. H. Look inquired whether the application of cocaine to these growths increased the liability to hemorrhage. In his experience, bleeding began when the capillaries relaxed.

Dr. T. W. Huntington said he had heard Dr. J. F. Morse say that he never removed the tonsil on account of the great danger of hemorrage following the operation.

Dr. F. B. Sutliff said that in such cases we were likely to encounter patients who were very prone to serious hemorrhage. He mentioned the case of a lady he had attended two years ago in her confinement. The hemorrhage was serious at the time, and the subsequent flow was altogether too free to feel easy about. Two days ago this patient had come to his office stating that she had had a tooth extracted. She was bleeding profusely, was exceedingly pale, and had evidently lost a good deal of blood. With a large exposed surface, as in the class of cases alluded to by Dr. Briggs, such a patient would be a source of grave apprehension.

Dr. Thos. Ross said a simple and effective way of arresting hemorrhage of this character was irrigation with hot water.

Dr. Briggs, in replying, said he thought that cocaine contracted the vessels and in this way acted as a styptic. Regarding the fatality of the operation, deaths from this cause were very rare. The late Dr. McKenzie, whose experience had been perhaps greater than that of any other operator, had never met with a fatality. On the other hand, it was certainly true that for one that might die from operative interference, hundreds suffered for the want of it.

Dr. T. W. Huntington briefly reported a case of unusually large foreign body removed from the knee joint [to be published].

Dr. W. A. Briggs exhibited several new instruments which he stated he would describe in more detail at some future time. They included a new surgical needle, with a Hagedorn point and a round shank. A vaginal speculum, opening and closing by a ratchet movement, and which was constructed to secure wide expansion at the vaginal outlet. The speaker also showed a recent improvement, simplifying his axis traction forceps, that had been exhibited to the Society some time since.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, January 9, 1894.

The President, W. WATT KERR, M.D., in the chair.

New Member.—FRANK P. WILSON, M.D., was duly elected a member of the Society.

DR. W. F. CHENEY read a paper on "The Pathology and Local Treatment of Puerperal Endometritis" [published at page 57].

DR. W. H. MAYS said the rule of the surgeon was quite plain: remove all detritus, and have cleanliness and drainage. He believed in the use of peroxide of hydrogen in these cases, as he had seen it reduce the temperature 2 or 3 degrees in an hour. There are many cases where the douche fails and the flexible wire curette must be used.

DR. H. GIBBONS, JR., had nothing special to add. It was his custom to use the intrauterine douche whenever unfavorable uterine symptoms appear. He seldom used the curette, but preferred the double current catheter and a solution of the liquor sodæ chlorinatæ. This must be freshly prepared. He could not see any reason for using either douche or curette indiscriminately.

DR. C. E. FARNUM said the use of the curette in fevers resulting from absorption of septic products need not remove the protecting layer of white corpuscles. He had always noticed a rapid fall of temperature following the use of the curette. It removes blood clots, etc., better than any other means and gives a better chance for thorough irrigation. He had used it often and had never regretted it.

A Fatal Case of Pelvic Abscess.—DR. G. W. DAVIS reported a case of pelvic abscess that had resulted fatally. The patient, a well nourished woman, aged 23 years, married 2½ years, had never been pregnant. Three days previous to his visit, and two weeks after her last catamenia, she had complained of lassitude and headache, both of which symptoms were, for her, unusual. Except for a slight chilliness, she felt better the following day. That evening she felt worse, some tenderness over the entire abdomen being noticeable; however, she felt well enough to take a music lesson, make social calls, and to do some shopping. The temperature was 101°, pulse 90, abdomen tender, especially over the epigastrium. There was no peritoneal or intestinal distension; tongue coated, some nausea. The bowels had moved as usual during the day. As there was no complaint of pelvic trouble, the speaker supposed the tenderness was due to her having taken cold, as the muscles in other parts of the body participated. The following morning patient reported that she had vomited frequently during the night, retaining but little of the remedies prescribed. Temperature, 100°, pulse 96; tenderness most severe over pelvic region. There was a firm tumor the size of a walnut in the hypogastric region. *Per vaginam* the cervix, utero- and utero-vaginal connective tissue was very hard and tender, too tender to permit of a thorough examination of the pelvic contents. A diagnosis of acute metritis was made and appropriate treatment ordered. That day the temperature increased toward evening, falling again the following morning, after a restless night, and rising that evening. Vaginal tenderness still too great to permit of examination. The following morning patient reported having had a better night, and that evening the temperatures was 101°, pulse 98, and no tympanites. Patient expected to be all right in a few days. On the fourth day he was hurriedly summoned at 6:30 A. M., and found patient in a state of collapse, abdomen greatly distended, pulse almost imperceptible. The temperature was 105.8°, and a diagnosis of ruptured abscess or extrauterine pregnancy seemed possible. At this time an operation seemed inexpedient, and every effort was made to stimulate the patient, whose condition at 11 A. M. had much improved. At 2 P. M. patient was much worse; the temperature had risen to 106°. Having decided that operative interference was imperative, the abdomen was opened in the median line, a large amount of pus escaping, as well as some gas. The peritoneum and bowels were lusterless, injected, and inflamed, old and extensive adhesions uniting the pelvic viscera. There was an abscess cavity in the left iliac fossa, the left ovary being almost entirely destroyed. The uterus was firmly fixed and unyielding; the right ovary was much enlarged. The remains of the left ovary were removed, but in the condition of the patient it was deemed inadvisable to interfere with the abscess sac; the cavity was irrigated and dried, and a drainage tube inserted. Patient rallied well, the temperature dropping from 105° to 103° in less than an hour. This favorable condition did not last long; patient soon began to fail and becoming comatose, died at 11 P. M., the temperature shortly before death rising to 108°. The speaker said he had reported this case to illustrate the necessity of always carefully examining a case, no matter how trivial it may seem. It was also an illustration of the entire absence of history in some cases of extensive and destructive pelvic inflammations. He did not regard laparotomy as the first procedure in these cases, as many of them could be successfully treated and drained *per vaginam.*

DR. CHARLOTTE B. BROWN said Dr. Davis' case was a very interesting one for future reference. There are many cases of pelvic trouble that deserve a great deal more attention than they get. Very many give rise to few if any symptoms. Dr. Davis' case was undoubtedly one of old ovarian abscess.

DR. C. G. KENYON thought that a larger opening should have been left, packed, perhaps, with iodoform gauze.

DR. DAVIS, in replying, said he had used a drainage tube, so that the abdominal cavity could not be said to have been closed.

Loreta's Operation for Aneurism of the Descending Aorta.—**DR. T. C. RETHERS** reported the following case: Patient, a barkeeper, aged 40 years, had had gonorrhea, but otherwise no venereal disease. Three years ago he complained of shooting pains over the left shoulder, in the left axilla, and radiating downwards toward the abdomen. He was treated for rheumatism without effect, and has since then lost 40 pounds in weight. Three weeks before entering the German Hospital patient's wife noticed a lump over his left shoulder where he had observed a throbbing sensation. On examination, beyond an emaciated and anemic condition of the body nothing abnormal was discovered. On the left aspect of the thorax, posteriorly, there was a swelling as large as a small child's head, pulsation being visible over all of it. The tumor extended from the third to the seventh rib, overlapping the spinous processes and extending out under the scapula. The skin over tumor was unchanged. The diagnosis of aneurism of the descending aorta was made. On October 18, 1893, the following operation was performed by Dr. J. F. Morse: The tumor was exposed by an incision three inches in length over the most prominent part of the tumor and parallel to the vetebral column. Four and one-half feet of silver wire were then passed into the sac through a canula. There was no hemorrhage; Monsel's salt was used; the skin wound closed with silk sutures and a dry antiseptic dressing applied. On the second day following the operation there was an evening temperature of 102°, with a morning remission; this was also present on the following day. On the 21st the dressing was removed, and commencing abscess of the stitch holes was noticed. Patient complained of feeling weak and of pain over the tumor. November 5th, at 4 A. M., the night nurse's bell was rung violently, and on entering the room patient was found, in bed, dead.

Autopsy.—The left pleural cavity was full of blood, about two quarts escaping. The heart was slightly hypertrophied, valves intact, papillary muscles showing signs of commencing fatty metamorphosis. Bulbous aorta, slightly enlarged, walls thickened, intima showing signs of chronic endarteritis deformans, fatty streaks and patches, slight ulcerations and calcifications. Behind the arch, and descending aorta and extending to the left and right of it, was a large aneurismal sac, divided by constrictions into three smaller sacs, the whole being somewhat pear-shaped. The surfaces of the vertebræ, and of the ribs with which it had come in contact, were atrophied. This was most noticeable on the ribs of the left side, part of the fourth having entirely disappeared. The walls of the sac were very thin, and at the left upper corner was a ragged opening, the point of rupture. Through the opening between the third and fifth ribs the sac had become subcutaneous, and had here enlarged until it extended from the first rib above to the seventh rib below. All the sacs were filled with a hard, partly organized clot; the wire was partly discernible, coiled up in the sacs and covered by the clot.

At the conclusion of the paper **Dr. Morse** demonstrated the abdominal aneurism of a patient upon whom he had performed this operation several years ago, the patient having been cured for a period of four years. A secondary sac had then formed and burst into the transverse colon. The wire and clot, which completely filled the original sac, could be plainly seen. The specimen is particularly interesting, as showing the final result of the case. In another case of aneurism of the abdominal aorta the success, as far as obliteration of the sacs was concerned, was not so complete, but the patient's condition was much improved, and he is still alive and working, three years after the introduction of the wire.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, December 16, 1893.

The President, Luke Robinson, M.D., in the Chair.

Dr. R. W. Baum read a paper and exhibited the patient, on "Notes on a Case of Suspected Multiple Sarcoma of the Skin" [published at p. 68.]

Dr. D. W. Montgomery said: I first saw this case, with Dr. Baum, about three weeks ago. The spots were then quite small, but even at that time, although red in color, they did not give one the impression of being inflammatory foci. They certainly were not flea bites, for they lacked the central hemorrhagic spot. On looking over his cutaneous surface, we ran across a pea-sized, reddish lump, on the inner side of the right thigh, which the patient said had been there for years. Dr. Baum cut this out and gave it to me for microscopical examination. I found it to be made up of embryonic spindle cells, and, as many moles have this structure and yet remain dormant the whole life through, I was disinclined to base upon it such a grave diagnosis as sarcoma. A few days ago Dr. Baum told me that this tumor on the inner side of the thigh had recurred, and was larger than ever, and that he had again cut it out, together with one of those on the body, for a second examination. Both of them were found to be made up of embryonic, spindle-celled tissue with a considerable number of capillary blood vessels, the walls of which were simply rows of spindle cells. There does not seem to be any reason for doubting that Dr. Baum has here to do with a case of sarcoma and, as in most cases of sarcoma of the skin, the primary tumor is located in some of the internal organs. The beginning of last October, Dr. Cohn sent me a most interesting case of sarcoma of the skin, which also may have been primary in some of the internal organs. The patient, a man of thirty-six years of age, enjoyed good health up to ten months before I saw him. He then began to have waterbrash, and five months later commenced to vomit shortly after eating. Three months after this he began to cough, and the vomiting ceased. The cough came on only when he moved around, and was a peculiar, spasmodic, expulsive effort, with very little expectoration. He rapidly lost flesh. Three months before I saw him, a small lump appeared in the skin of the inner, upper aspect of the thigh and spread till it was a large, brawny, lardaceous mass, of a dusky-red color, occupying the upper part of the front of the thigh and the lower part of the neighboring abdominal surface, being deeply wrinkled in the line of Poupart's ligament. The upper border of this mass was not well marked, but its lower border was, giving the impression of a distinct, thick edge; and scattered all along this lower border, in the apparently healthy skin, were a great number of little, freely-movable lumps, satellites to the main tumor. The large mass was evidently infiltrated into the skin, of which it formed a part. Besides this there were a number of other tumors scattered over the body and one in the scalp, some of them being freely movable under the skin, and others infiltrated into the integument itself. The right posterior cervical lymphatic glands were small and hard, forming a bead-like string; neither the left posterior cervical ganglia nor the epitrochlears were demonstrable. He never had had any venereal disease. The kidneys were probably implicated in the disease, for frequent micturition of a scanty, turbid urine, loaded with urates and containing albumin, had developed. There were some pus corpuscles in it, but I do not think enough to account for the quantity of albumin. Neither the liver nor the spleen were demonstrably enlarged. A good-sized piece was cut out of one of the tumors on the back, and found to be sarcomatous; that is, embryonic spindle-celled tissue. The blood was normal, and there were no tubercle bacilli in the sputum. Dr. Cohn and I put him on Fowler's solution, in gradually increasing doses, as affording him some little hope of checking the disease. He was, however, only able to take eighteen drops a day on account of irritation of the stomach, and it was not thought advisable to give the drug hypodermically, as he went right along developing new tumors and running down in health. After being under observation about two weeks, his breathing became much embarrassed, and the left side of the chest began to bulge out. Dulness and absence of breath sounds took the place of pulmonary resonance and vesicular murmur over the left lung, except at the apex. The breathing was puerile over the right lung. The heart sounds were normal, but masked. He evidently had an effusion into the left pleural cavity, but before we had an opportunity to draw it off he left our care to receive comfort in some other direction. In reply to an inquiry, the speaker said there was no pigmentation in either case. Frequently in primary sarcoma of the skin there is no pigmentation. One case, of Dr. McNutt's, occurred under the ball of the foot, an unusual place; it generally appears on the tread of heel.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, December 4, 1893.

The President, ALBERT ABRAMS, M.D., in the Chair.

DR. S. M. MOUSER read a paper entitled "Microörganisms and their Relation to Disease." [Published at p. 69.]

DR. H. E. SANDERSON read a paper entitled "Serum or Phagocyte—Which?" [Published at p. 76.]

DR. F. Z. BAZAN said there was still much uncertainty as to the cause of immunity, though the fact that vaccination produces in certain cases a condition of immunity is no longer disputed. This was first known when Pasteur attenuated the germ of chicken cholera by heat, and produced in fowls a mild disease which rendered them immune to otherwise fatal inoculations. The theories of immunity from the occurrence in the blood of definite substances are not altogether tenable, because it is hard to understand how such substances can remain for so long in the animal economy. The speaker then read a summary of a recent article by the celebrated bacteriologist, Bouchard.

DR. J. O. HIRSCHFELDER said the investigations of the last few years had led to a large number of very interesting results. The weight of authority at present seems to be against the theory of phagocytosis. However, in favor of this theory are the phenomena described by the term chemiotaxis, first observed by Dr. Buchner, of Munich. Dr. Buchner found in bacteria proteid substances having the power of attracting the white blood corpuscles. He found that besides these albuminous substances there were others derived from the vegetable kingdom, and others from the animal, and even some chemical salts which possessed the same powers. It became very clear that the bacteria observed in the interior of leucocytes were, in all probability, dead, and had been surrounded by the ameboid cells. But the question of immunity is not completely solved, if we accept the theory of phagocytosis. It seems strange that the phagocytes should be able to overcome 20 or 30 different forms of bacteria and not others, and should under the influence of substances injected into the system acquire the power of overcoming these. There are not the same difficulties with the serum theory. When a given species of bacteria develops in culture, certain inorganic substances are formed and certain organic, called ptomaines, which are capable of crystalization. They form salts with platinum, which can be precipitated. The platinum salts can then be decomposed, leaving the pure ptomaines. These substances frequently have actions on the animal organism like atropine and other alkaloids. Besides these there are other substances formed, tox-albumins, which if treated with alcohol are precipitated. They may be again dissolved in water and reprecipitated with alcohol, by which process they are isolated in the pure state. When these substances are injected they produce symptoms like the disease. Brueger experimented with the tox-albumins of diphtheria, and produced systemic reactions, followed by paralyses. The injection of a toxine causes an alteration in the serum producing a substance called antitoxine, because of its property of neutralizing the toxine. This, too, may be precipitated with alcohol and isolated. If an animal be inoculated with a toxine, and an antitoxine derived from the action of the same bacterium on a less susceptible animal no symptoms arise; or if the antitoxine be injected after the toxine has begun to show its physiological action, the symptoms pass off. Such substances have been used in the treatment of animals and man, notably in tetanus, whose antitoxine is readily produced in dogs. It has been isolated by Tizzoni, who reports some very favorable results from its use. A very small quantity of the antitoxine is required to produce immunity. The problem of immunity is to be solved on this line. How can these substances remain in the system long enough to give permanent immunity? How can animals remain immune? The answer is, they do not remain immune. In variola, measles, etc., we are continually meeting with second attacks. The case of pneumonia is notorious. The immunity following an attack is of very short duration. The antitoxine of pneumonia has been isolated, and has been used in a number of cases with good results. The duration of immunity varies with different diseases. Albumins do not readily diffuse through animal membranes, so that they may remain a long time in solution in the blood. That they pass out of the body is proved by finding them in the milk, which has been shown to have the power of causing immunity in animals into which it is injected. Ehrlich experimented with certain vegetable substances, and showed the same thing. Abrine, if applied to the conjunctiva, will set up a severe inflammation, and ricine has a similar effect. In the animal body there is produced after inoculation with abrine an anti-abrine, which has the power of rendering an animal so resistant to abrine that a strong solution will not set up a conjunctivitis. Similarly an animal can be made immune to ricine by feeding him for a time on castor beans. This antitoxine is secreted in the milk. The subject is a very attractive one, it is still far from clear, but it promises something for the future.

DR. S. M. MOUSER said Dr. Sanderson spoke of the fact that the proteids derived from different parts of the body are different in their actions on bacteria, and that the glands, such as the spleen, have great bactericidal power. It is interesting to note that when these organs are removed from the body and sterilized, they make the best culture media, and have recently been used as such. Many germs do not grow on agar or gelatine, and some of these we have been able to cultivate on material from these glands.

The meeting then adjourned to examine a series of cultures and microscopical preparations of various species of bacteria prepared by Dr. Mouser.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

Regular Meeting, December 21, 1893.

The President, GEO. H. POWERS, M.D., in the Chair.

Embolus of the Retinal Central Artery.—DR. A. BARKAN presented an interesting case of embolic artena retinæ centralis. The patient, J. B——, after taking his usual afternoon hot bath (100° F.) of fifteen minutes' duration, noticed at the dinner table, on trying to carve the turkey, that his sight failed him, and he saw only a portion of the bird. On closing the left eye, he found that he was absolutely blind in the right eye; before retiring, however, he found the sight improved, as he could distinguish his own outlines in the mirror, with the affected eye. He could not remember any preliminary symptoms. The speaker saw the patient on the third day after the occurrence, and found the following condition: External appearance and tension of the eye normal, but very slight reaction of the pupil. Optic disc and surrounding parts toward the macula lutea show a delicate, grayish-white opacity. No sign of optic nerve swelling and no hemorrhage.. Blood vessels plainly visible. Both the arteries and veins are smaller than usual and there is a marked absence of the smaller branches. The seat of the embolus could not be located, it being most likely in the trunk of the artery. There is a slight circulation noticeable in the vessels of the nasal side of the retina, and a small amount of vision is retained on the temporal side. The left eye is normal and vision, with proper correcting glasses, equals $\frac{6}{6}$. The treatment consisted in massage of the eye, the motion being directed from before backward, and was continued for several days, twice each day; eserine was instilled, to diminish the tension of the globe. After a few treatments with massage, vision on the temporal side was distinctly improved, and the circulation in the fundus was markedly better. This was confirmed by two colleagues, who had seen the patient before the commencement of the treatment. Since that time there has been a gradual, but slight, improvement in the circulation, but no noticeable improvement in vision. The massage has been discontinued.

A case of double-sided glaucoma was also presented by Dr. Barkan, showing the interesting anomaly of arterial pulsation in the retinal arteries of the right eye and venous pulsation in the retinal vessels of the left eye.

SPECIAL CORRESPONDENCE.

GERMANY.

Medical Berlin.—Its Superiority over other Medical Centers.—Cæsarian Section at the Fraüen Klinik.—Prof. von Bergman.—Orthopedic Surgery and Prof. Julius Wolff.—His Operation for Cleft Palate.—Prof. R. Koch.—Bacteriological Examination of the Water Supply of German Cities.

It has been my good fortune, in the past nine years, to visit the capital city of the Fatherland several times, and to spend a few weeks in the various clinics and hospitals. With each succeeding visit I am more and more impressed with the superior opportunities which Berlin offers to the general practitioner of medicine. The superiority over other medical centers consists first in the unrestricted supply of funds for all necessary requirements. Paris and Vienna have made no improvement in the way of new lecture halls or amphitheaters in the past ten years. The same ill-ventilated, poorly-lighted, rough-seated, amphitheaters which, on my first visit in 1884, were years out of date, still do service. London, whose hospitals are still more cramped for funds, is no better as regards student accommodation. In Berlin, however, many modern hospitals and amphitheaters have been erected, and the facilities for good hearing and good observation, particularly in the Surgical, Gynecological, and Obstetrical Departments, cannot be excelled. The amphitheaters are separate from the hospital, and resemble, in their solidity of construction, their lighting facilities, their decoration, and seating capacity, our modern theaters. As in all other public works of Berlin, the clinics and hospitals are under control of the Emperor and his subordinates. Everything is done with military precision.

One of the most interesting clinics of Berlin is the Fraüen Klinik on Artillerie strasse, the director of which is Prof. Olshausen, successor to the lamented Carl Schräder. During my stay in Berlin, I was fortunate in seeing a Cæsarian section by Prof. Olshausen, at this clinic. The patient was in the ninth month of pregnancy, and so far as I have heard, both child and mother are doing well. It was the eighteenth Cæsarian section since 1880. Eight of the last ten cases have resulted favorably to both mother and child.

The Surgical Clinic presided over by von Bergman occupies another block of modern pressed brick structures. The amphitheater is also of new construction, and first class in every respect. The clinic is as popular with the students as ever, and one must go early and wait long to get a seat, even in the back rows. Von Bergman himself is as erect and soldierly in his appearance as in former years, but the graying of hair and beard show the years to be advancing. He is an idol to the medical student in Berlin.

One of Berlin's most noted surgeons in orthopedic work is Prof. Julius Wolff, an extraordinary professor in the Berlin University. A man of indomitable energy, he carries on his university work, and besides has built up a private clinic and hospital occupying a large four-story building. I had the pleasure and privilege of making the rounds of his visits on several occasions, and also witnessed a delicate cleft palate operation on a six months' babe. During my clinical visits in this private hospital, I was particularly interested in a case of Trendleberg's new operation for the cure of hernia. Prof. Wolff has already performed the operation a number of times, and gives it as his opinion that it is the most successful and simplest for the cure of hernia. It consists in taking a piece of bone from the symphysis pubis and fixing it in the inguinal canal. As a result there is a constriction of the canal, which in all cases up to date has held tightly. Prof. Wolff has operated on one hundred and sixty cases of cleft palate—simple and complicated. As he has probably operated more frequently than any living operator, he has also written more on the subject and stands to-day the best authority on cleft palate in the world. The success of his operations lies in his originality and the facilities at hand. His plan is first to loosen the flaps on either side of the cleft, then after four or six days, when the little patient has recovered from the effects of the first operation (as shown by bodily weight), the secondary operation is done. This consists in trimming the edges of the flaps that juxtaposition may be perfect, and suturing them. The mouth spatula and method of suturing are original with him, and in their perfection I believe the success of his operation lies.

I also visited the Hospital for Infectious Diseases, presided over by Prof. Koch, and met his assistants, Professors Brieger and Petrovsky. This department was erected by the government in 1891, at a cost of $200,000, and is designed solely to further the researches of bacteriology into the causes of disease. It is in this hospital that Koch continues his work with the lymph. You will remember my recommendation of the same, some years ago, in a letter from Berlin, and I am happy to say that I still believe in it—not as a universal cure, but as the best cure for phthisis, in the early stages, that we possess to-day. In the laboratories connected with this hospital, I saw numerous assistants engaged in examining the water supplies of different German cities. This is done systematically and daily at the command of the government. Dr. Weisse, head of the laboratory, told me that the water supply of Stettin still contains cholera germs, it being the only German city at this season, so affected.

BERLIN, December 5, 1893. G. C. SIMMONS, M. D.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

Influenza.—Boycotting a Hospital.—A Visit to Dr. Unna's Clinic.—An Octogenarian Medical Poet.—Disposal of Refuse.—Homeopathy in Germany.—Treatment of Retroflexion of the Uterus by Vaginofixation.

During the last quarter of the year, influenza has again spread throughout the country from Königsberg to Stuttgart and from Hamburg to Munich, and, although in general of a mild type, it has frequently proved a decidedly dangerous foe, especially to patients who are advanced in years. In the larger towns the cases notified number several hundreds, the unregistered ones probably thousands, and even the open country yields a very large contingent. In Berlin this increase of patients has unfortunately been accompanied by a general boycotting of the Charité, the chief hospital of the city, by the Social Democrats. As a reason for this procedure, which has already lasted several weeks, it is asserted that the building is overcrowded to an unwarrantable extent, that the food is insufficient in quality and quantity, and that the inmates, especially those of the lock wards, are treated more like prisoners and culprits than patients—not to enumerate various minor grievances. Of these assertions the first is undoubtedly correct. The building has long been insufficient as regards accommodation and even sanitary arrangements, and repeated efforts have been made to induce government to take the necessary steps for adding new wards, but hitherto without avail. As to the other complaints, making due allowance for the proclivity of most hospital patients to raise a clamour on the slightest provocation, real or imaginary, there is, notwithstanding, some reason to believe that these, too, are not quite unfounded. Professor Lewin, the *chef* of the lock department, which was principally attacked, did, indeed, when delivering his introductory lecture at the commencement of this term, defend the institution from these charges, but apparently without much success. At present the boycott continues, and a number of empty beds is the result, while elsewhere patients have to be refused admittance for want of room. Altogether, the hospitals of Berlin have of late been subjected to much vituperation. Besides the Charité, which is an institution of the state, we have three principal hospitals belonging to the corporation of the city, Moabit, Friedrichshain and Am Urban. The authorities have been extensively attacked in the newspapers, the plea being that the patients are too numerous in proportion to the medical staff. It has now been decided that no consulting physician or surgeon shall have more than 120 to 150 patients under his care at one time, which, considering the manner in which matters are managed here as regards assistants, etc., is a very reasonable decision.

In large towns the disposal of refuse is a matter of no little importance and difficulty. Of late, attention has been frequently directed to the value of the method of combustion in specially constructed furnaces, which was almost unknown in Germany until the Congress of Demography at London in 1891. In the Berlin Medical Society some interesting notes were read the other evening by Dr. Weyl. Up to the present time some 55 towns have erected furnaces, producing an aggregate of more than one million horse power. In Berlin, very shortly, a number of such institutions will be constructed, capable of consuming some 200 tons of refuse per week. The great advantage of the method is that it is practically inodorous, and that the matter which otherwise easily becomes a source of great danger, by reason of the innumerable pathogenic germs it contains, is rendered inocuous, and is at once utilized for the most various purposes, by transmission of the dynamic forces produced to all kinds of machinery. From a pecuniary point of view, it is also far better than employing garbage for manuring, as the latter process requires months and even years before the product can be made use of, while with the combustion plan we have, perhaps, a smaller profit, but an immediate return.

On the 26th of this month, Dr. Weber, a venerable member of our profession, celebrated the 80th anniversary of his birthday in the enjoyment of fairly good health, barring an attack of influenza, which he has just weathered successfully. Like Oliver Wendell Holmes, he is a poet of good standing, his principal work being an extensive epic poem, called "Dreizehnlinden," or the Thirteen Lime Trees, by which name the ancient cloister of Convey, near Hoxter, is understood. This was the center from whence Christianity was diffused amongst the heathenish Westphalian tribes, and the ultimate victory of the new doctrine forms the leading theme. Although born of humble parentage, by dint of indomitable industry and unusual talents, supported by a sturdy healthfulness and a robust frame, comparable to one of his native Westphalian oaks, Weber has achieved fame as a poet, a respected position as a physician, and esteem in the capacity of a representative for his native circuit in the Prussian Landtag for 32 years. To judge from these two writers, it would appear that the combination of poetry and medicine is exceedingly conducive to longevity. At any rate, we shall not be far wrong when insisting on the necessity of some kind of hobby for medical men, by which they may, for a certain portion of the day, or say the week, completely shift from their minds the worry and strain which the cares of their profession so liberally entail upon them.

Of all the federal states of Germany, Würtemberg is the one most blessed (or otherwise) with a copious supply of homeopaths, though all parts of the Empire contain a fair sprinkling of them. We even rejoice in a number, small to be sure, of periodicals in the Hahnemannian doctrine. But Würtemberg is, it would seem, the El Dorado of these worthies. This is in a great measure due to the fact that the Queen-Dowager Olga has long been a warm adherent of homeopathy, in consequence of having been once successfully treated by a very talented and energetic physician, Dr. Rapp, who happened to have taken to the creed. The latest evidence of the extent of the homeopathic persuasion there is shown by the attempt recently made in the Landtag or House of Representatives to pass a bill enacting that it be made compulsory that in the Royal Medical Council, a number of seats shall be occupied by professed homeopaths. After a good deal of discussion it was decided that the petition be submitted to the notice of the government for further consideration. The victory thus gained by these sectarians, though not in itself of much importance, contrasts very strikingly with the opinion expressed by L. Würchner (the well known author of "Kraft and Stoff," or Force and Matter; etc.), in a review on the occasion of the fiftieth anniversary of Hahnemann's demise. He writes: Homeopathy is a suitable method of treatment for wealthy, unoccupied, nervous, timid, and chiefly imaginary patients, whose disorders will heal under any or without any kind of treatment, and especially if the imagination forcibly steps in to aid the reparative work of nature. In consequence, the method will probably never quite die out, and it must indeed be conceded a certain amount of partly negative, partly positive usefulness, as just explained, in the hands of discriminating physicians. When applied by unskilled persons it can be, however, and undoubtedly exceedingly often has been productive of incalculable mischief.

A little while ago I enjoyed an opportunity of visiting Dr. Unna's dermatological clinic, at Hamburg. This eminent specialist is so well known all over the world, that he may well form the subject of a few notes. By perseverance and natural talent, unaided by any protection from higher quarters, he has attained fully merited celebrity. His clinic consists of four detached houses, one of which serves at the same time for his dwelling, located in an extensive park in one of the suburbs of Hamburg. Accommodation is here provided for a large number of patients, both of the better, as well as of the poorer classes. Although the clinical material thus collected is both varied and numerous, Dr. Unna's chief interest is centered in his laboratory and in the task of unraveling the many mysteries in which a great part of the etiology and morbid anatomy of skin diseases is still shrouded. He is much impressed with the necessity of scientific work in a narrower sense, as distinguished from clinical observation alone, as he maintains that the latter is quite insufficient to procure us that insight into the causation and progress of dermatological diseases which alone affords a firm basis for diagnostic and therapeutic purposes. He considers that the English-speaking dermatologists often neglect this scientific side and lay too much weight on personal observation. Truly but few possess the faculty of working out new methods of research as Unna has done; but it is quite clear that he is right when he says: we must persistently endeavor to discover new methods of examining pathological objects in order to be enabled to see those changes and their agents and products which hitherto may have been unveiled to our eyes.

Dr. Unna's innovations in therapeutics have made him everywhere justly famous, but what he himself considers of greater importance are his new discoveries in the field of the etiology and anatomy of skin diseases. On the latter subject he has just completed an exhaustive treatise, of which he will probably soon edit an English translation. Of his researches in etiology, I will only just mention the latest, that of the bacillus of chancroid, which at first met with some very adverse criticisms, but of the entity of which he is gradually convincing all his opponents.

In one of the latest meetings of the Berlin Gynecological and Obstetrical Society, Professor Dühessen presented a patient on whom he had performed his operation of vaginofixation of the retroflexed uterus two years ago. Since then conception has taken place and run a normal course. The woman nurses her child, feels quite well, and has had no trouble since the operation, which must be described as a complete success. Dühessen claims as a special feature of his operation in contradistinction to others, that he attaches the fundus and not the body of the uterus to the anterior wall of the vagina, thus insuring far greater reliability of the results; naturally the operation is more difficult to perform, as special measures are necessary to reach the top of the uterus. He has operated on 175 cases, achieving a cure in 144, or 82 per cent., while he has lost only one patient (0.55 per cent.) through sepsis. Considering the frequently unsatisfactory results of treatment by pessaries and the inconvenience experienced by those suffering from retroflection, these results may fairly be considered to indicate a valuable advance in the right direction.

December 30, 1893.

CORRESPONDENCE.

The Publication of Physicians' Portraits.

Sir: The reference of the New York *Medical Journal*, in its issue of December, 1893, to our calendar for 1894, demands a reply. While we were not mentioned by name, the reference is so direct that the physicians who received the calendar cannot but know to whom it referred. It has been our custom for several years to send to the medical profession throughout the United States portraits of eminent physicians and surgeons, and, inasmuch as their distribution has been scrupulously confined to medical men of good repute, no objection has been offered by those gentlemen whose likenesses we reproduced. Not a copy of this calendar, nor of any of our other numerous publications, has ever been sent to the laity. Maltine is distinctly not a "patent medicine," nor has it ever been advertised to the public, and therefore we have considered it within our province to distribute portraits just as we have promulgated testimonials from the most eminent physicians and chemists in this country and Europe. We have statistics to prove that 90 per cent. of the physicians of the United States prescribe Maltine. This fact, in addition to the fact that we reach the patient *only through the physician*, would seem to amply vindicate our use of the likeness of a physician whose pictures are on public sale and have continually appeared in the public press, and who is well known as a public man. The portraits referred to were not used to push the sale of our preparations, as was the portrait of Dr. D. Hayes Agnew, recently published by us. It will be remembered that we printed under Dr. Agnew's portrait a facsimile of his indorsement of Maltine. Our only reason for publishing the portrait of Dr. —— was because we thought it would interest his medical brethren, who have shown so high an appreciation of the series of likenesses we have already published. We should like further to say that as soon as objection was made by him we suspended the distribution of the calendars, as we would not knowingly offend even one of the honorable profession to whom we are so greatly indebted. We are, etc.,

THE MALTINE MANUFACTURING COMPANY, New York.

REVIEWS AND NOTICES.

E. B. TREAT announces for early publication a system of legal medicine. A complete work of reference for medical and legal practitioners by Allan McLane Hamilton, M.D., of New York, and Lawrence Godkin, Esq., of the New York Bar, assisted by thirty collaborators of recognized ability. In two royal octavo volumes of about 700 pages each. Fully illustrated. The great need of a standard American work on medical jurisprudence has long been felt, and in this work every department will be thoroughly and reliably treated.

THE ANTIKAMNIA VISITING LIST.—Some time ago we received from the Antikamnia Chemical Company a visiting list, small, neat and compact, almost small enough to be carried in the vest pocket; and having, beyond the firm's advertisement on the inside covers, nothing to increase the bulk. The book contained 23 pages, with space for 20 names on a page, and the firm offered to supply a new book every quarter. For the physician who ordinarily carries a visiting list, this supply would be wholly inadequate, and, as this was the limit to which the company proposed to go, we did not notice the list. The publishers appear to be astonished at the success that they have achieved, and are, no doubt, appalled at the result of their venture. While adhering to their original offer they are unable to go further, and they have accordingly arranged with their printers, J. B. Burr & Co., of Hartford, Conn., to furnish new books at the following rates: one book, 10 cents; 6 books, 50 cents; 12 or more books, 80 cents each. These books, which will contain no advertising, will be sent postpaid on receipt of price.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES FOR 1893. Vols. I to V. Philadelphia: The F. A. Davis Co.

This, the sixth issue of the Annual, was somewhat late in its appearance owing to the removal of the editor, Dr. Sajous, to Paris, and the addition of a number of new workers to the staff. Amongst these may be noticed Dujardin-Beaumetz, Benjamin Ward Richardson and Apostoli, with several others, all well known to students of modern literature. The general plan of the work has been maintained, and illustrations, many of them colored, have been freely used. It is gratifying to learn that this most important work is on an assured basis, and to note that each successive yearly issue bears marks of improvement and continued effort at greater excellence.

OUTLINES OF OBSTETRICS. A Syllabus of Lectures delivered at the Long Island Medical College. By Chas. Jewett, A.M., M.D., Professor of Obstetrics and Pediatrics in the College, and Obstretrician to the Hospital. Edited by Harold F. Jewett, M.D. Philadelphia: W. B. Saunders.

The smaller handbooks are deservedly coming into favor with the hard-worked student and the harder-worked general practitioner. Life is short, not long—oftentimes doubly, even trebly long, by the unnecessary multiplication of words. Among the best of these handbooks is the Outlines of Obstetrics. It covers the entire field of obstetrics, briefly and yet thoroughly, and forms an admirable framework for the larger knowledge derived from experience and medical literature. It may be safely and warmly commended as an aid to the science of the student and the art of the practitioner.

LEONARD'S PHYSICIAN'S POCKET DAY-BOOK. Bound in red morocco, with fiap, pocket and pencil loop. Price, post-paid, $1.00. Detroit, Mich.: The Illustrated Medical Journal Co.

This day-book is now in its 16th year of publication. It is good for thirteen months from the first of any month that it may be begun, and accommodates charges for fifty patients daily for that time, besides having a cash department, and complete obstetric records. There is space for the diagnosis of each case, or for brief records of the treatment adopted, following each name-space. The name of each patient needs to be written but three times in a month. It has the usual dose list; poisons and antidotes; urinary tests, exanthematicæ; disinfectants; weights and measures. The book is 7½ inches long and 3½ inches wide, so that it will carry bill-heads or currency bills without folding. It is bound in flexible covers, and weighs but five ounces, so that it is easily carried in the pocket.

CLINICAL GYNECOLOGY; BEING A HANDBOOK OF DISEASES PECULIAR TO WOMEN. By Thomas More Madden, M.D., F.R.C.S., Ed., Obstetric Physician and Gynecologist, Mater Mesericordiæ Hospital, Dublin; formerly Examiner Conjoint Board Royal College of Surgeons and Apothecaries' Hall, Ireland, ete. With 259 Illustrations. Philadelphia: J. B. Lippincott Company.

Dr. Madden's frequent contributions to the medical press of America have familiarized American medical men with his name and teachings, and have led them to desire, if not to expect from his hands a systematic treatise on those subjects in which he has taken so long and so deep an interest. The present volume consists of a series of lectures, forty-seven in number, presumably delivered originally in the medical class-room, and containing a somewhat rapid survey of the diseases peculiar to women. Among these diseases, the first considered is injuries to the perineum. Various methods of repair are dealt with, but preference is given to the method proposed by Duke, which consists essentially of two steps: first, a transverse incision of the recto-vaginal septum, two and one-half inches deep and two inches wide; and, second, the passage of a suture around the entire incision from one extremity to the other, and of the necessary supplementary sutures above and below, which by their adjustment convert the transverse incision, originally at right angles with the axis of the vulvar orifice, into an antero-posterior one, directly in line with this axis. This operation seems to ignore the anatomy of the pelvic floor, but its simplicity, its freedom from danger of sepsis and from loss of tissue, as well as its espousal by Dr. Madden, entitle it to respectful consideration. In speak-of laceration of the cervix, the author says it is of unquestionable importance as a proof of previous delivery "since by no other circumstance can this injury be produced." This statement seems to be too sweeping, for it has fallen to the lot of more than one operator to produce, by instrumental dilatation, a tear important enough to leave permanent proof of its existence. After describing trachelorrhaphy, Dr. Madden adds that no operation more than this "requires that the surgeon's zeal be tempered by discretion." In the treatment of endometritis, he does not accord to electricity the prominence to which many observers believe it entitled, but assigns it, on the contrary, to the limbo of "useless methods." While recognizing the occasional necessity of the surgical treatment of uterine fibroids, he warns against "a too ready acceptance of the doctrine that a woman within the period of menstrual activity, who suffers from uterine fibroma, must therefore be subjected to any operation whatever."

He believes in asepsis, reinforced by antisepsis, and in general demonstrates that to live in the present, it is not necessary to forget the past. In the publication of this work, Dr. Madden has performed a service to gynecology which will certainly be appreciated by his fellow workers.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held January 2, 1894, the following physicians, having complied with the law and the regulations of this Board, were unanimously granted certificates to practise medicine and surgery in this State:

Benjamin Apple, San Francisco; Cooper Med. Coll., Cal., Dec. 7, '93.
Hisamatsu Arita, San Francisco ; Med. Examining Board Tokio, Japan, Nov. 13, '93,
John S. Barrett, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
B. C. Bentley, Stockton ; Cooper Med. Coll., Cal., Dec. 7, '93.
R. M. H. Berndt, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Thomas P. Bodkin, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
George W. Burk, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Chauncey Rea Burr, San Francisco ; Harvard Univ. Med. School, Mass., June 27, '88.
H. G. Burton, San Diego : Med. Dept. Univ. City of N. Y., Mar. 4, '69.
Rawlins Cadwallader, San Diego : Med. Dept. Univ. Cal., Dec. 14, 93.
James Wesley Clark, Santa Rosa ; Cooper Med. Coll., Cal., Dec. 7, '93.
George D. Costigan, San Francisco ; Cooper Med. Coll., Cal., Dec. 6, '92.
Thomas E. Cunnane, Santa Ynez ; Cooper Med. Coll., Cal., Dec. 7, '93.
Le Grand N. Denslow, Los Angeles ; Coll. Phys. and Surg., N. Y., March 1, '76.
Millicent E. Falck, San Francisco ; Med. Dept. Univ. Cal., Dec, 14, '93.
Fred. C. G. Flesher, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Ernest M. Freeman, Lompoc ; Med. Dept. Univ. Cal., Dec. 14, '93.
William F. Friedhofer, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Alexander M. Gall, Stockton ; Med. Dept. Univ. Cal., Dec. 14, '93.
Cosmas A. Glover, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Franz C. A. Goerss, San Francisco ; Alex. Univ. of Erlanger, Bavaria, Germany, Jan. 26, '69,
J. W. Going, San Francisco ; Mich. Coll. of Med., Detroit, Mich., March, 3, '84.
George S. Goodhart, Los Angeles ; Med. Dept. Penn. Coll., Philadelphia, Penn., March 7, '49.
Max S. Guggenheim, San Francisco ; Univ. Basel, Switzerland, May 19, '84.
Carl C. Hansen, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
James L. Hardin, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Herbert Wallace Hatch, San Francisco : Cooper Med. Coll., Cal., Dec. 7, '93.
Edward S. Horton, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Clarance H. Hulse, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Liugi Salvatore Jadarola, San Francisco ; Coll. Phys. and Surg., Chicago, Ill., March 11, '84.
John Ely Janes, Pasadena ; Believue Hosp. Med. Coll., N. Y., May 1, '76.
Charles Lee King, Lamanda Park ; Chicago Med. Coll., Ill., March 30, '80.
Hugh Lagan, San Francisco ; Med. Dept. Univ Cal., Dec. 14, '93.
Charles S. Maguire, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Sherrie H. Manly, Stockton ; Coll. Phys. and Surg., Chicago, Ill., April 13, '93.
Francis Martin, Los Angeles ; Med. Dept. Univ. Louisville, Ky., March 1, '60.
Charles F. McCarthy, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
J. A. McNear, Jr., San Francisco ; Med. Dept. Univ. Cal., Dec. 7, '93.
Henry Meyer, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Abd-Ül-Masih Musawwiz, San Francisco ; Syrian Protestant Coll., Beyrouth, Syria, July 8, '91.
Ralph T. Orvis, Alvarado ; Cooper Med. Coll., Cal., Dec. 7, '93.
Alexander Patterson, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Mark L Pettit, San Francisco ; Cooper Med. Coll., Cal., Dec. 7, '93.
Henry Lee R. Phelan, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Gardner Perry Pond, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
George W. Rachel, San Francisco ; Coll. Phys. and Surg., N. Y , Mar, 3, '74,
Stephen H. Rantz, Lakeport ; Med. Dept. Univ. Cal., Dec 14, '93.
Joseph S. Sageser, National City ; Jefferson Med. Coll., Pa., April 2, '83.
William K. Sanborn, Oakland ; Med. Dept. Univ. Cal., Dec. 14, '93.
H. J. C. A. Sartori, San Rafael ; Cooper Med. Coll., Cal., Dec. 7, '93.
Sydney H. Schrader, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
Grace Simon, San Francisco ; Med. Dept. Univ. Cal., Dec. 14, '93.
W. I. Van Riper, El Monte; Coll. Phys. and Surg., N. Y., Nov. 2, '91.
Moses Wylie Ward, Woodland ; Cooper Med. Coll., Cal., Dec. 7, '93.
John Wright, San Jose ; Med. Coll. Ohio, March 1, '54.

CHAS. C. WADSWORTH, Secretary,

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army, from December 20, 1893, to January 20, 1894.

Major David L. Huntington, surgeon, medical director of the department will proceed to Forts Bayard, Bowie, San Carlos, Grant and Huachuca, for the purpose of making the inspections contemplated in A. R. 1662; and upon completion of the duties assigned, will return to his proper station. Par. 1, S. O. 3, Dept. of the Colorado, Jan. 10, 1894.

Captain Louis V. La Garde, assistant surgeon, is, in addition to his duties as attending surgeon and examiner of recruits, announced as temporarily in charge of office of the medical director during the absence of the latter, in obedience to paragraph 1 of this order. Par. 2, S. O. 3, Dept. of the Colorado, Jan. 10, 1894.

Assistant Surgeon, Thomas U. Raymond, having been summoned as a witness before the general court-martial now in session at Vancouver Barracks, Wash., will report to the president of the court without delay. When notified by the court that his presence is no longer required, Assistant Surgeon Raymond will return to his proper station, Fort Canby, Wash. Par. 2, S. O. 6, Dept. of the Columbia, Jan. 12, 1894.

By direction of the Secretary of War, leave of absence for two months, to take effect on or about January 15, 1894, with permission to apply for an extension of one month, is granted Major John D. Hall, Surgeon.

ITEMS.

A Correction.—Dr. R. Harvey Reed has removed to Columbus, Ohio, not to Mansfield, as was erroneously stated in our last issue.

Eleventh International Medical Congress—Dr. Jacobi, of 110 West 34th street, New York, the Chairman of the American National Committee, has received the following information regarding the Congress. "American members will pay on English, French and Italian railways single fares for double journeys, and will obtain a reduction of twenty per cent. on fares for Italian round-trip tickets. The documents required for their idenitfication will be sent to Dr. Jacobi in January, and Americans intending to visit the Congress will have to apply to him for them. Full particulars concerning the journeys will accompany the documents. Messrs. Thomas Cook & Son, London, Paris, Rome, and Naples, should be applied to for accommodation and for tickets for the excursions at Rome, Naples, and to Sicily. Such excursions will be arranged at Rome, under the guidance of Mr. Forbes, member of several scientific societies and correspondent of the *Times*—for Naples, three days, including Vesuvius, Pompey, Capri, Sorrento, Castellamare, Bajae, etc.—for Sicily, ten days from Naples, including Messina, Taormina, Catania, Girgenti, Siracusa, Palermo, and return to Naples. The fares for members of the Congress will be considerably reduced and will comprise hotel accommodations, carriages, guides, boats, etc.—about 70 francs each, for the three days, and 285 francs for the ten days. Full particulars concerning these excursions will be contained in a leaflet to beadded to the instructions and documents for the journey." From former communications the following are quoted: The members' fee is five dollars, that of their wives or adult relations, two dollars each. Cheques or money orders may be sent to Prof L. Pagliani, Rome, Italy. Credentials have been promised in the near future. When they arrive (none were received last year), they may be too late for many who have started or are about to start. Dr. Jacobi, who has not been informed of the cause of delay, proposes to supply in as official a form as he thinks he is justified in doing, credentials which are expected to be of some practical value. The North German Lloyd has promised to recognize them. It is suggested, besides, that a passport may increase the traveler's facilities. Only the North German Lloyd (22 Bowling Green) and the Compagnie Général Transatlantique (3 Bowling Green), have thought fit to grant any reductions to Congressists. The reductions on Italian railways are available from March 1st to April 30th.